American Aviation

The Air Industry's Pioneer Independent Magazine

Dec. 1, 1949

JUL 1 1949

Why the Urgency?

BASED ON some sort of urgency with which we are not yet fully familiar, there is a rather determined drive on in some quarters to concoct a formula by which air mail "compensation" can be separated from "subsidy."

At first blush it would seem that this separation could be determined without too much difficulty. Just separate the real costs of the air mail service from the payments made to the airlines and, bingo, you have the simple answer as to what constitutes subsidy. But, as *The Education of Henry Adams* warns, "Simplicity is the most deceitful mistress that ever betrayed man."

by W. W. P.

The evaluation of costs of providing air mail service to the country as a whole may involve many things but simplicity is not one of them. It is highly complex because it involves a great many intangibles as does every other type of public service.

We are certain that the public has an idea that the airlines are heavily "subsidized." Ask anyone on the street how much of each dollar of airline revenue comes in the form of air mail pay and the answers are startling. Some impressionable folk who have been conditioned by anti-airline propaganda will tell you that as much as 40c or 50c of each dollar of revenue is from federal "subsidy."

In the first six months of 1947 the 18 trunklines averaged only 6.8c out of every dollar in air mail pay. In 1948 this ratio rose to 11.2c. For the first six months of this year only 9.9c out of each dollar of revenue came from mail pay.

Perhaps ten per cent of one's total revenue is subsidy, but not in our books. Last year the airlines performed 38,000,000 ton miles of mail carriage or over 98,000,000 pounds of mail. No one has yet proposed that the airlines should carry the mail free, any more than a typewriter company sells its products to the government free or at a loss. Whether the cost of carrying the mail is high or low, the fact remains that it cannot be too far out of line when only ten per cent of the revenue is obtained from that one source.

We think there has been far too much confusion about what air mail pay is for. The inference has been very strong that "the airlines" are being "subsidized" for some ulterior purpose or for someone's

(Turn to Page 8)

New General Manager for Fairchild

Ben O. Howard, well-known pilot, aircraft manufacturer and now director and consultant for Consolidated Vultee Aircraft Corp., has been appointed general manager of Fairchild Aircraft Division of Fairchild Engine and Airplane Corp., effective January 1. The post became vacant when Richard S. Boutelle was elected president of the corporation. Howard has designed and built both military and commercial planes in his own company and at one time served as consultant to United Air Lines.

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REFERENCE COPY

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AMERICAN AVIATION DAILY — OFFICIAL AIRLINE GUIDE — AMERICAN AVIATION DIRECTORY

3 GREAT NAMES lick a Refueling Problem!

● (Above) The fleet of nine modern-to-the-minute Columbian Refuelers recently placed in service by Phillips Petroleum Company to service Mid-Continent aircraft at various points along their flight route.

COLUMBIAN Refueling TRUCK TANKS

There is no place in today's modern air travel for antiquated, cumbersome, hard-to-operate refueling equipment. The utmost in swiftness and efficiency is demanded in all refueling operations—and the fleet of nine modern Columbian units shown above is providing just that for the Phillips Petroleum Company in serving Mid-Continent Airlines, Inc.

Phillips Petroleum Company says: "They are the neatest appearing jobs that have been built, to date, and the piping and general arrangement certainly surpasses anything previously built for us."

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Long experience of Columbian engineers in creating this typ of equipment was utilized to assure such compactness that 1500 gallon capacity is perfectly proportioned on a truck of only 8 inches C. A. dimensions. After providing space for compact, ef ficient dispensing mechanism, there is ample room for lube oi sampling equipment, etc. 80-GPM filtered refueling operation at only 800 RPM motor speed (little more than idling). Figur this operating cost against a racing motor.

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More aircraft land
on Goodyear tires, tubes,
wheels and brakes than
on any other kind
GOODYEAR
AVIATION
PRODUCTS
AMERICAN AIRLINES
347

News in Brief

Increased business for U. S. airlines is expected as result of a change in immigration regulations which allow travelers from one foreign country to another to pass through the U. S. without obtaining a transit visa. Amendment was made to Part 42, Chapter 1, Title 22, Code of Federal Regulations. A considerable amount of traffic has been going via other routes because of the difficulty of obtaining U. S. transit visas.

Complaint of Colonial Airlines that members of the CAB entered into a conspiracy to grant unlawfully a permit to Trans-Canada Air Lines for a New York-Montreal route has been dismissed by a statutory three-judge court in Washington. Colonial is expected to appeal the 2 to 1 decision which was in the form of granting a CAB motion for dismissal of the complaint.

TWA and Western Air Lines have joined the list of trunk airlines reporting nine-month profits. (See AMERICAN AVIATION, November 15, 1949, p. 17). TWA reported a net profit of $3,931,910 before taxes, with revenues totaling $81,576,857 and expenses amounting to $77,644,947. Company's announcement, however, was prepared in advance of CAB's mail rate show cause order cutting back TWA's mail pay for the nine-month period by $1,500,000. For similar period last year, TWA had loss of $1,810,017 on income of $73,853,395 and expenses of $75,663,413 . . . Western showed a net profit of $349,194 for January-September, compared with loss of $391,762 for same period last year. Operating revenues increased $574,890 while expenses decreased $340,847.

The first two air Star Routes under new Public Law 277 enacted by Congress last August have been certified by CAB to the Post Office Department. The routes are between Honolulu and Kalaupapa, T. H., and between Charlevoix, Mich., and St. James, Mich. CAB declared that neither route conflicts "with the development of air transportation as contemplated under the Civil Aeronautics Act."

The National Aviation Trades Association has approved a plan submitted by M. F. Redfern, secretary of the Air Traffic Conference of America, calling for coordination of scheduled airlines and local operators in extending taxi or charter services to airline patrons. The plan must be presented and approved by the ATC before it can become effective.

The Air Force has announced the selection of Camp Forrest, Tullahoma, Tenn., as site of its much-discussed Air Engineering Development Center, ending months of speculation over 25 possible sites. Survey parties will move immediately to the 33,000 acre tract, but major construction will not begin for a few months. The budget provides $6,000,000 in cash and $24,000,000 in contract authority to start work.

The Italian carrier, Linee Aeree Italiana, has received approval from the Economic Cooperation Administration for an ECA-financed project for the purchase of three four-engined American transports to be used on a Rome-New York route slated to be established early next year. The ECA project amounts to $4,500,000. Final decision as to the type of equipment has not been revealed but it is reported that the Italians plan to buy early-model Lockheed Constellations. LAI is not yet certified for such a route.

CAA has sent its DC-3, equipped with Goodyear cross wind landing gear, to Colombia to aid that country in checking its air navigation facilities, airports and air traffic control procedures. The Colombian government feels that there is a prominent need for single strip runways in the rugged terrain and is paying the cost of the operation.

British Overseas Airways Corp. will inaugurate London-New York Stratocruiser service on December 6 with initial frequency of one round-trip weekly.

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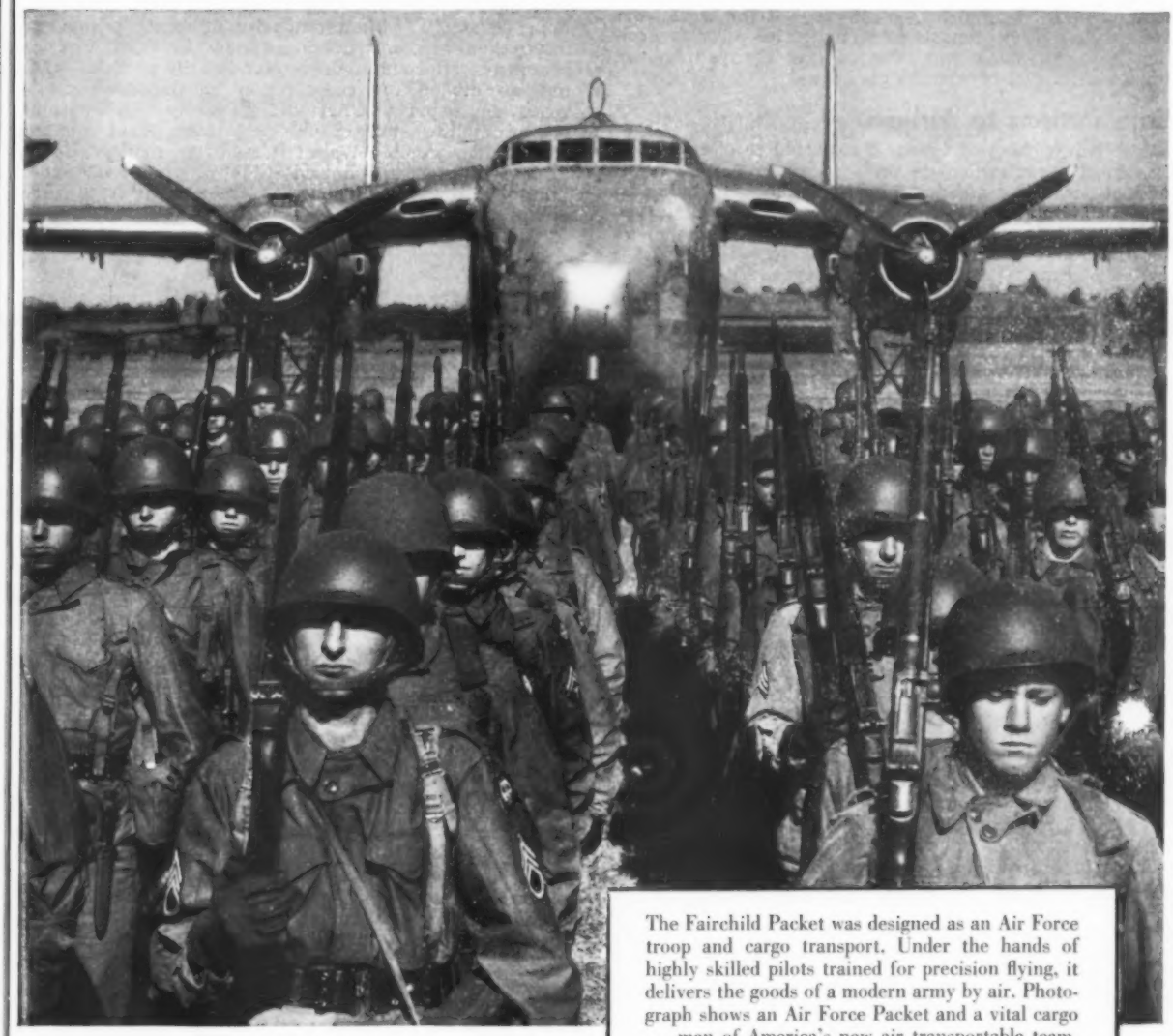

The Fairchild Packet was designed as an Air Force troop and cargo transport. Under the hands of highly skilled pilots trained for precision flying, it delivers the goods of a modern army by air. Photograph shows an Air Force Packet and a vital cargo . . . men of America's new air transportable team.

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BACKGROUND & TRENDS

Among the Airlines

Prediction by **W. A. Patterson,** president of **United Air Lines:** the scheduled airlines in 1950 will account for 46½% of the first-class travel market against 43½% this year, despite the fact that there will probably be a continued decline in this market . . . **Airlines experienced a traffic** decrease following Eastern Air Lines' Washington accident, scattered reports putting it at 10-15% although some lines operating in sections widely removed from the accident scene were doing better. Aircoach was off more than regular schedules, one official attributing it to larger percentage of first-riders on the coaches. Load factors were picking up at this writing . . . **Lloyd's of London,** now dealing in commercial plane insurance in most parts of the world, has started to collect reports of commercial aircraft accidents in the same way that it has always received immediate news of marine casualties.

Constitutions to Airlines

The Navy, short of funds, is expected to offer its two Lockheed Constitutions to the airlines on a lease basis. and at least one airline, Pan American, has indicated that it is interested. The planes, with 92 airline-type seats on the upper deck and provisions for another 76 on the lower deck, must either be leased or "mothballed" because the Navy doesn't have operating funds. The planes are now flying out of Moffett Field, Calif.

Southwest-West Coast Merger

Southwest Airways and **West Coast Airlines** have about reached a meeting of the minds on a merger—a move long discussed in the interest of efficiency and operating economies. It's unlikely, however, that a formal application to CAB for approval of a consolidation will be filed until after the two west coast feederlines' certificates have been extended. The two lines now connect at Medford, Ore. Another feeder, **Empire Air Lines,** had had discussions with WCA looking toward a purchase, but negotiations have been broken off and Empire is not involved in present SWA-WCA talks . . . Incidentally, CAB showed unusual haste in starting **Monarch Air Lines-Challenger Airlines** merger hearings November 21. The Board wants to consider it simultaneously with the proposed Monarch-Arizona Airways merger case, on which hearings have already been held.

Aeronca to Make Helioplane?

Lightplane manufacturer most likely to produce the personal-type model of the Bollinger-Koppen Helioplane, according to informed industry sources, is Aeronca Aircraft Corp., Middletown, Ohio. The unorthodox craft with operating characteristics unmatched among present conventional models, is expected to be manufactured under a licensing arrangement with rights to the plane retained by the developers. Dr. Lynn Bollinger, co-developer of the plane, recently indicated that the production model would be a four-place design.

Slick to Sell?

Earl Slick, president of all-freight Slick Airways, is reported apparently anxious to get out of the business. A Slick intermediary is said to have sounded out several airlines about buying out the company, but asking price is considered high. The airline (certificated July 29, started scheduled service Aug. 12) reported net loss of $168,000 to CAB for first half of this year. Slick has categorically denied that there is any plan to dispose of the airline.

Counting the Fixed Base Operators

Although details aren't worked out, CAA is expected to take a census of all U. S. fixed base operators. Conferences have already been held with National Aviation Trades Association and National Association of State Aviation Officials. Census is expected to show who the fixed base operators are, where they're located, what activities they're engaged in, their planes and personnel, capital investment, plus other information.

Airport Notes

CAA and Bureau of Public Roads are conducting a joint study looking toward a **speed-up of ground transport** between airports and cities. Emphasis will be on improvement of volume capacity of existing highways more than on construction of new airport-to-city expressways. Normal highway funds will be used—CAA has no money for construction or improvements of roads off airports. CAA will probably employ someone from the staff of the American Road Builders Association, possibly Walter R. Macatee, manager of the airport division, to supervise the program and act as liaison with Public Roads . . . **Amendment to the Federal Airports Act,** calling for indefinite extension of the legislation, is being drafted by CAA for introduction at the 2nd session of the 81st Congress. The program (seven years, $500,000,000, expires June 30, 1953) is in its fourth year with only about 30% of funds actually appropriated, and CAA will ask that the act be kept in force for as long as it takes to do the job.

Two More 'Weeks'

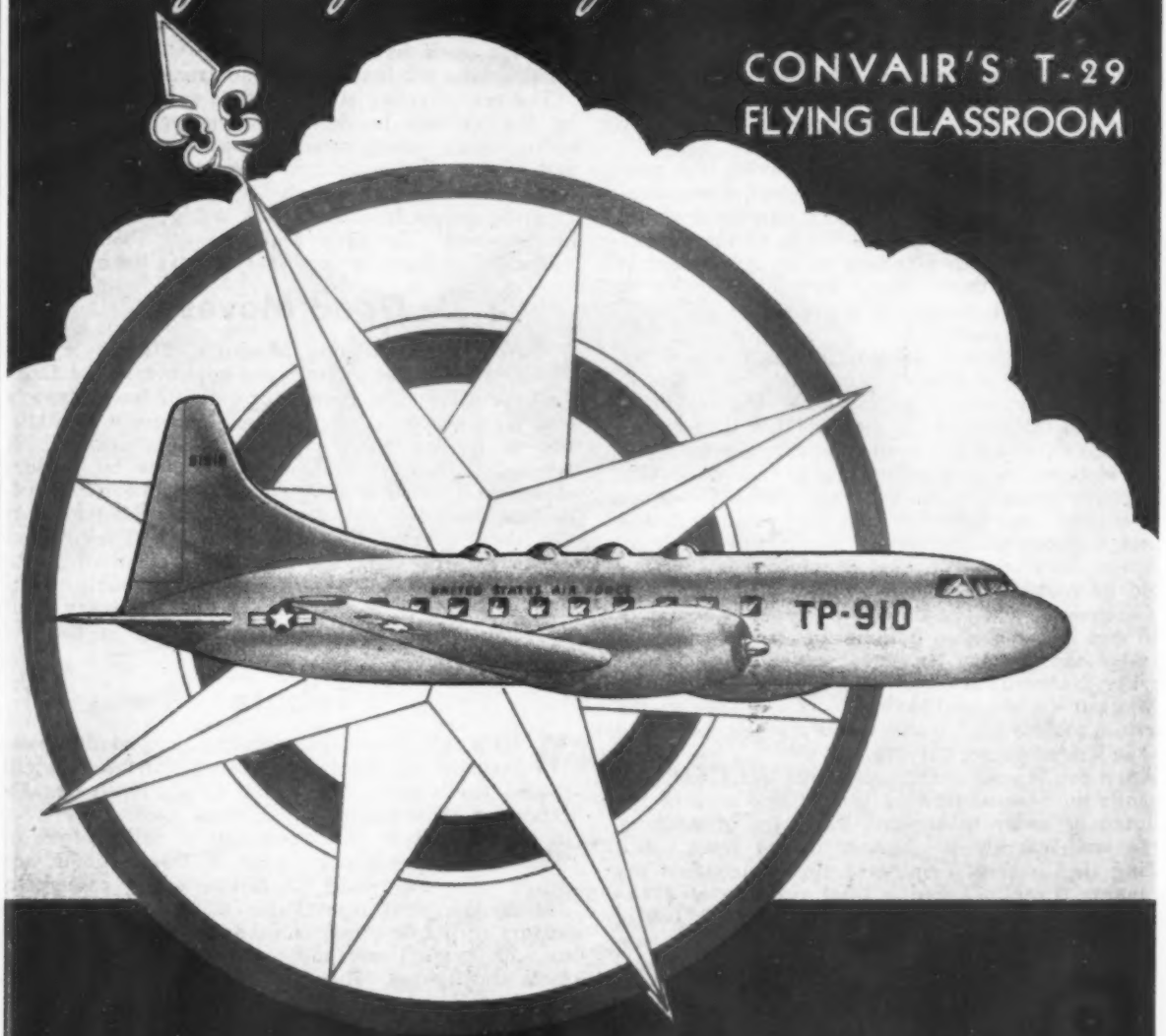
Aviation, a meeting-minded industry, has two more "weeks" scheduled. Gov. Turner of Oklahoma, and Oklahoma aviation leaders (particularly John Burke, operator of Wiley Post Airpark at Oklahoma City) have acted on suggestion of CAA Administrator Del Rentzel and set the week beginning next April 19 as the occasion for a week-long series of meetings of civil aviation groups in Oklahoma City. Invitations have been sent to about 100 groups to hold their annual meetings then, or to send representatives. The groups would hold individual meetings during the day and then have a series of joint dinner meetings to iron out problems. In addition, New Orleans, recent scene of NASAO and NATA conventions, has set December 5-11 as "Aviation Week."

People

A portrait of **T. E. Braniff,** president of Braniff Airways, has been placed in the Oklahoma Hall of Fame at Oklahoma City by the Oklahoma State Historical Society . . . **Robert J. Smith,** president of Pioneer Air Lines, has been elected president of the National Air Council, succeeding **F. Trubee Davison** . . . CAB Member **Harold Jones** flew to Alaska last month to confer with local airline operators on ways to improve air transportation in the territory . . . **John P. Knight,** assistant general sales manager of Gulf Oil Corp., has been elected chairman of the aviation advisory committee of the American Petroleum Industries Committee of the American Petroleum Institute for 1950. He succeeds **R. C. Oertel,** manager of Esso Standard Oil's aviation department. **E. E. Lothrop** continues as secretary and staff representative of the committee, and the new vice chairman is **J. S. Harris,** manager of Shell Oil's aviation department . . . **Scott K. Higgins,** an experienced pilot and instructor, has been appointed director of the Maine Aeronautics Commission, succeeding **John T. Clark,** who resigned because of illness.

"Leading the way and training the men who lead the way"

CONVAIR'S T-29
FLYING CLASSROOM



Soon to be placed in operation by the United States Air Force, is the Convair T-29, the first post-war, high-speed, multi-place trainer.

A development of the Convair-Liner, proved by millions of miles of airline service, this flying classroom is fully equipped for the mass training of student navigators.

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Consolidated Vultee Aircraft Corporation
San Diego, California • Fort Worth, Texas

EDITORIAL

(CONTINUED FROM PAGE 1)

special benefit. But CAB Chairman Joseph J. O'Connell, Jr., has provided the best analysis of the benefits when he testified before the Senate Interstate and Foreign Commerce Committee earlier this year.

"It may be well to point out, however, that provided the carrier's management is honest, economical and efficient, the payment by the government of the amount necessary to meet the needs of the carrier and to furnish it with a return on its investment is not a subsidy to the carrier," he said. *"Rather it is a subsidy to the persons who use the air service."* (The italics are ours.)

In other words, any service that is required by the public is not a subsidy service. Some may say that this is merely a play on words, but we think it strikes at the root of the matter. If it is desirable to reduce the total air mail payments being made to the airlines, the starting point is to remove several hundred secondary cities from the air mail map.

If air mail were to be confined to major trunk routes between the big cities, eliminating all small and secondary stops, the cost of the air mail service could be reduced very substantially. But the intent of Congress in passing the Civil Aeronautics Act of 1938 was to establish a national network so that all parts of the country could be served by fast mail service. Naturally it costs more to serve the smaller points but an air mail service confined only to the heaviest-volume mail traffic could scarcely be called national in scope or purpose.

When the federal government paid out $35,000,000 recently to peanut growers in just one area of the country in order to support the price of peanuts, there was scarcely a whimper in the press. But during the first six months of this year when the 18 major trunklines had a total revenue of $225,451,000, there are complaints because $22,407,000 of that total (or 9.9%) came from mail pay for providing every section of the country with fast air mail service. No matter how you argue it, the public was the primary beneficiary and if that $22,000,000 was too high a price to pay, then reduce the service to the public, not imply that the airlines are gorging themselves at the public trough.

There is, of course, another factor in analyzing costs. Because of the haphazard way in which airline routes have been expanded there is a fairly wide diversity of payments to the various companies. This is not always due to the size of an airline, as the Harvard Business School study on *Airline Competition* points out, since small airlines can be just as efficient as large ones and sometimes more so. But this is basically a problem of route realignment through due process and of public convenience and necessity and, as such, is a problem for the Civil Aeronautics Board. Given time and facilities, the CAB will undoubtedly show progress. Congress gave this task to the CAB and it hardly behooves Congress or anyone else at this juncture to break into an evolutionary process with a lot of revolutionary ideas being promoted for one reason or another.

The urgency of discovering an artificial formula for separation of mail pay from "subsidy" doesn't quite jibe with the consistent decrease in ton-mile costs of carrying the air mail and of the slow but certain progress made by airlines and the CAB in effectuating a more efficient national air transport system.

The real urgency is in a public relations program by the airlines to defend themselves against the outrageously exaggerated propaganda by railroads and others. If the airlines succeeded in hammering home the single thesis that only ten per cent of revenue comes from mail pay, a big victory would be achieved. The only real urgency about airline "subsidy" is that the true story hasn't been told.

Good Moves

PLANS FOR merging Monarch, Challenger and Arizona feeder airlines are now before the CAB for approval in the near future. Southwest Airways and West Coast Airlines are exploring the possibilities of putting their two companies together. It seems to us that these merger moves by feeders make good sense and may very well mean the difference between continuance or discontinuance of the feeder program on any large scale. The original feeder awards were too small. By combining into larger systems the feeders may well be able to attain a sufficiently high level of efficiency and economy to merit a permanent place in the air transport picture.

Tribute

WHEN AN advertising agency places ads in newspapers paying tribute to the airlines' safety record, that's news. The Lewis Edwin Ryan Organization of Washington, D. C., took paid space over its own signature the other day to tell readers of Washington newspapers what it thinks about air safety. The copy said the airline safety record "is one of the most remarkable achievements in the history of public transportation, and may be pointed to with pride," and supported the statement with facts and figures. This is real public service advertising.

Don't Sell Yourselves

THE MISSOURI Aviation Newsletter recently carried the following very pointed blank verse directed to all local operators:

Men of the aviation field
The possibilities you've concealed
By talking flying among yourselves
Has put private flying back on the shelves.
Don't sell yourselves—
You don't NEED to be sold;
It's the businessman who should be told
That the airplane can aid in his enterprise.
Sell him in terms he can recognize:
Speed, comfort, prestige, and profits increased.
It's worth a try—give it a chance at least.

And the Florida Aviation Bulletin which quoted the above added tartly: "The operator who depends entirely on GI flight training is doomed to ultimate failure. Any sort of subsidized flight training should be considered as a supplemental aid and not a principal means of support." To which we say, Amen.

WAYNE W. PARRISH.

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Note low, sturdy landing gear with wide tread and exclusive cross-bracing of struts. Nose gear position, plus long wheelbase, eliminates pitching, allows greater braking.

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. . . then you'll see why it's a better buy!

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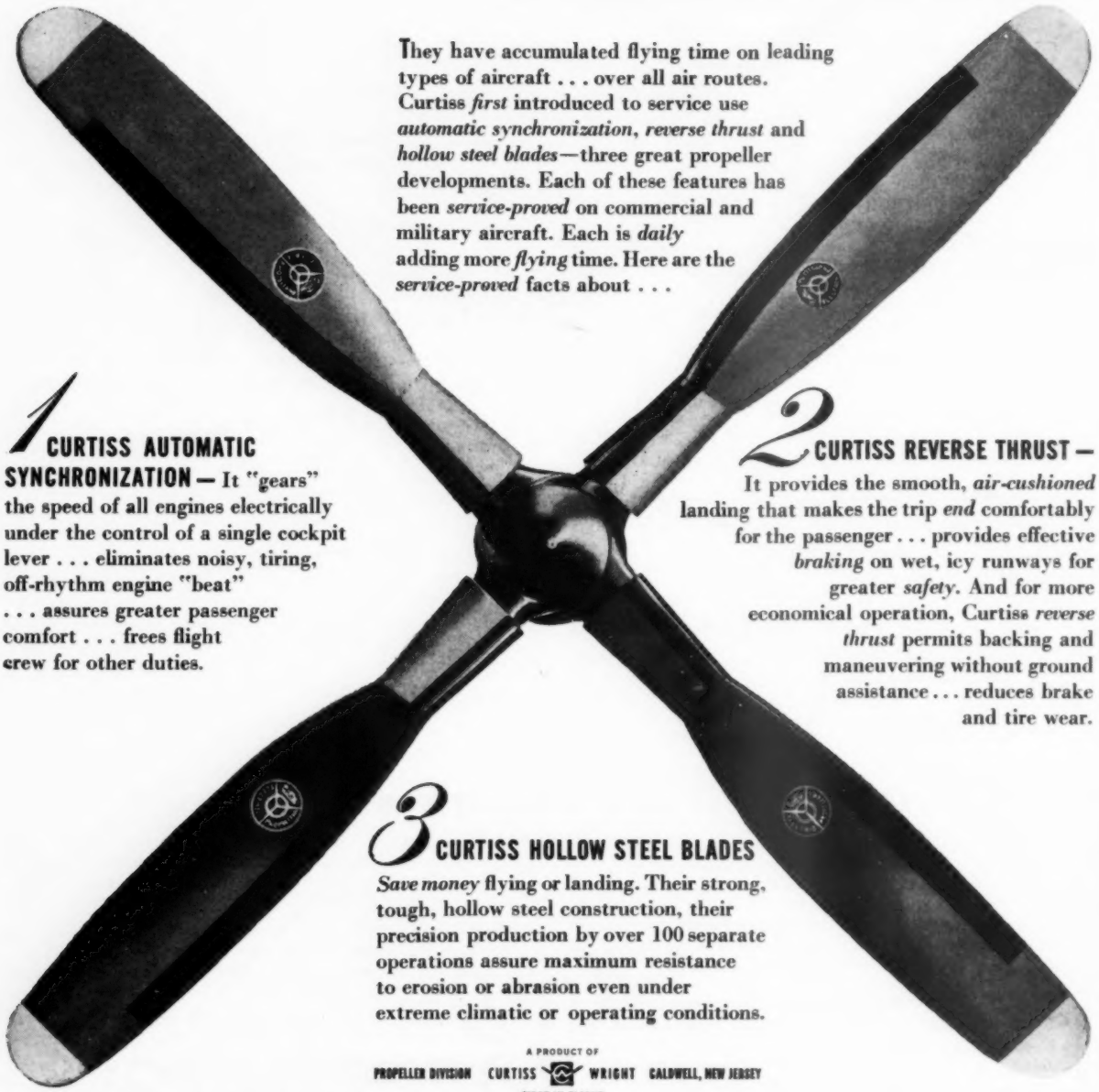

They have accumulated flying time on leading types of aircraft . . . over all air routes. Curtiss *first* introduced to service use *automatic synchronization*, *reverse thrust* and *hollow steel blades*—three great propeller developments. Each of these features has been *service-proved* on commercial and military aircraft. Each is *daily* adding more *flying* time. Here are the *service-proved* facts about . . .

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2 CURTISS REVERSE THRUST — It provides the smooth, *air-cushioned* landing that makes the trip *end* comfortably for the passenger . . . provides effective *braking* on wet, icy runways for greater *safety*. And for more economical operation, Curtiss *reverse thrust* permits backing and maneuvering without ground assistance . . . reduces brake and tire wear.

3 CURTISS HOLLOW STEEL BLADES

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Established
June 1, 1937

American Aviation

Volume 13
Number 13

Airlines Gain Competitive Edge as Rail Fares Rise

By William V. Henzey

When the Interstate Commerce Commission approved a 12½% increase in eastern territory rail fares last week, its counterpart, the Civil Aeronautics Board, was considering four additional airline proposals to lower fares for new air coach operations—and therein lies a significant story.

Pending at the time of the ICC decision were applications of America Airlines, TWA, Eastern Air Lines, and Delta Air Lines to expand air coach route mileage by over 60% before the first of the year. Engaging successfully in the 4c air market at the same time were the pioneers, Capital Airlines and Northwest Airlines, as well as TWA, Western, Eastern, and National. The entire domestic airline industry with the exception of one regional carrier was pushing the half-fare family plan, and many were experimenting with reduced-fare promotional schemes.

Actually, the revenue-generating policies of the two industries—rail and air—almost clashed head-on, going in opposite directions. The railroads complained of deficits totalling over $252,000,000 in passenger operations last year and were successful in receiving authority to increase coach fares in the east to 3.376c per mile and first class fares to 4.5c.

Simultaneously, the airlines were offering theoretical and factual support to proposals designed to make a $15,000,000 coach potential a reality by next June, by developing traffic at the new low in airline fares—4c per mile.

Plateau Reached. Typical of this support was the statement filed by American Airlines with CAB last week, in which the carrier said the time is appropriate to broaden the base of its potential market by attracting new travelers with lower fares. There are increasing signs, American said, that the growth of air transportation may have reached a ceiling beyond which growth at the present fare levels may be very slow.

Somewhat the same theory, applicable to the rail industry, was expressed by ICC Chairman Charles D. Mahaffie, who apparently thought very little of the logic expressed by the railroads in suggesting a fare increase as a solution to financial ills and declining traffic. Mahaffie, one of the four minority dissenting commissioners, warned that the time has arrived for railroads to experiment with reduced fares rather than with further increases. Envisioning the most promising passenger market in history, he said that vacant seats rather than inadequate fares are the prime cause of passenger deficits.

Despite this, however, eastern territory railroads will increase their fares to an all-time high just as soon as appropriate tariffs can be compiled. The result is that rail coach and first class fares will be considerably higher than air fares between many important pairs of points.

Between Chicago and New York, for example, the current air coach fare is $29.60 as compared to the new rail coach rate of $30.71. Similarly, the first class air fare of $44.10 is less than the new rail rate of $48.64 for premium accommodations. This is true also between such points as Washington-Pittsburgh, New York-Cleveland, and Chicago-Washington, to name a few.

Actually, the new base rates for rail travel are slightly under comparable air rates, but the airline advantage stems from more direct mileages on which to compute total charges.

Decline Brings Deficit. In exhibits supporting the increase requests, the rail lines pointed to last year's deficit and attributed it partly to declining traffic loads and partly to substantial increases in wages and operating expenses. They estimated that the 12½% increase in fares would mean an increase in revenue of about $37,800,000 annually.

Expressing the opposite airline view, however, American Airlines told CAB it would not have proposed its lower transcontinental coach fares unless it was convinced that the service and the fares charged would permit the operation to be self-sustaining, and within reasonable time, profitable to the carrier, without disrupting the fare structure of the industry.

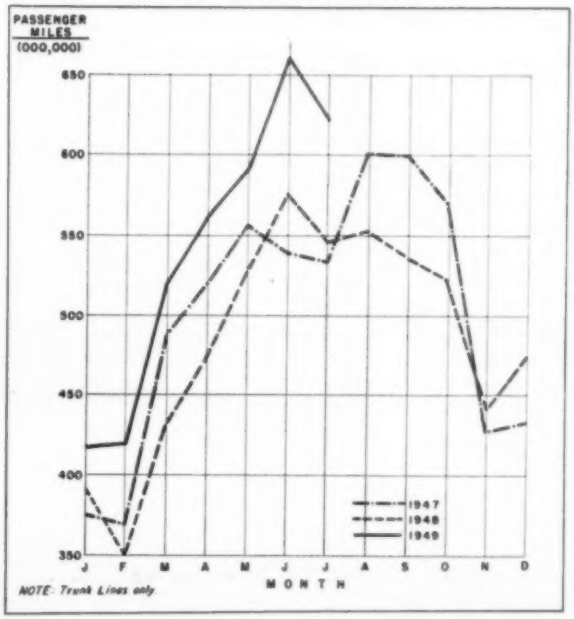
Perhaps the most significant factor in American's attempt to achieve such an operation can be seen in its guiding principle that a high-density aircraft should produce as much gross revenue as that available from an airplane of less seating density operating on the higher standard fare. From this, a formula was devised under which American reasons the number of seats in the high-capacity airplane multiplied by the proposed fare must at least be equal to the amount arrived at by multiplying the present number of seats in the airplane by the present fare, allowing, of course, a reasonable margin for load factor variation.

The railroads, however, in apparent disregard for the proximity of their fares to those of the airlines chose not to rely on traffic stimulants or theories to offset mounting losses, despite the indisputable fact that the controlling inducement to traffic volume is the rate of fare. Their attitude was summed up by the ICC majority which opined that the new rates will still be relatively low when compared to the general level of incomes and prices generally. More railroad income is needed, they said, in the light of heavier operating costs.

American Explains. The statement of American Airlines, considered by many as being indicative of the airlines' thinking on reduced fares, went into significant detail on every point of its new coach proposal.

Supporting its selection of routes on which to try the experiment, American referred to CAB's own suggestion that coach fare experimentation be con-

Domestic Airline Passenger Miles
January, 1947—July, 1949



Air vs. Rail Fare Comparisons

Between	O. W. Coach Rail Old Fare	O. W. Coach Rail New Fare	O. W. Coach Air Present Fare	O. W. First Class Rail Old Fare	O. W. First Class Rail New Fare	O. W. First Class Air Present Fare
Chicago-New York	$27.30	$30.71	$29.60	$44.10*	$48.64*	$44.10
Chicago-Washington	23.03	25.90	24.30	37.87*	41.70*	36.80
New York-Washington .	6.74	7.58	8.60	10.73**	11.85**	13.40
New York-Cleveland ...	17.18	19.33	17.80	27.85*	30.70*	25.10
Washington-Pittsburgh .	8.93	10.05	7.50	15.36*	16.84*	12.10

*—Includes Pullman lower berth.
**—Includes parlor car seat.

fined to route segments having a heavy flow of traffic. The three segments selected, New York-Los Angeles, New York-Chicago, and Chicago-Los Angeles, rank first, second and seventh, respectively, in passenger miles among all domestic segments, according to CAB's traffic survey for September, 1948.

The entire coach program, AA said, was calculated from the start with the larger and faster DC-6 in mind, despite plans of the company to start the service on December 27 with DC-4 equipment. Best estimates at this time are that modification of the DC-6 planes will take until April, 1950, at which time they will be moved into the coach operation. Frankly, American said, it does not propose and does not desire to operate a DC-4 service unless the DC-6 program is approved by the Board.

Multiple reasons were given for this stand. One is that the cost per mile of operating a DC-4 is greater than that of the DC-6. Another, and perhaps most significant of all, is the fact that the DC-6 has greater revenue-generating capacity than the DC-4.

The element of diversion from regular operations was minimized by the carrier, which also is aiming the program at the non-sked market which comprises a substantial portion of traffic formerly handled in regular operations by the scheduled lines.

Important to Industry. American's policy on the coach question is highly important to the entire domestic industry, for it admitted to CAB that out of this experiment may come the conclusion that a larger part of present air service should be converted to the coach-type, high-density service, and if so, American will make the conversion. Or, it was added, it may be that there should be some readjustment in the basis of fares and services throughout the industry, and if so, American will then make the adjustment.

Its basic principle, American said, is to develop wider markets by lowering fares consistent with economic realities in costs. The 15% growth in volume of domestic passenger mileage of all domestic carriers for the first seven months of 1949 (see graph) might not have been available had not the airlines instituted promotional fares, such as the family plan, which were successful in stimulating more business.

Over a similar period of time, railroad traffic has decreased approximately 14% and can be expected to continue on the decline as a result of the fare increase.

Conclusions may be drawn on which of the traffic and revenue-generating theories of these two industries is most practical, but airline officials are secretly thanking the railroads and the six Interstate Commerce Commissioners responsible for the brightest winter outlook in airline history.

FIDO Operation Not Likely This Winter

The FIDO installation at the Los Angeles Airport will require modification to make it effective for airline operation, and it will likely be put on a standby basis awaiting final decision on the steps to take. It is a foregone conclusion it cannot be operated during this winter's fog season.

Trouble is that more heat is needed to provide visibility for calm or easterly wind conditions. With the wide separation between the two lines of burners, 800 to 1,100 feet (wider than at Arcata), the Los Angeles installation fails to generate enough temperature to disperse the fog at the center of the runway.

A technical committee, appointed to explore all operating phases of the system after trouble was encountered with the first tests, has recommended that a new, or third, line of burners be installed at a separation of 400 feet to insure sufficient heat under any wind conditions.

Rough estimate of the cost is $297,000. Where to get the money is one of the problems. The original installation, costing $842,000, was financed jointly by the CAA and the city of Los Angeles under the Federal Airport Act, but the airlines contracted to repay $386,541 advanced by the city on a five-year amortization basis. The five carriers, American, Pan American, United, TWA and Western, start paying on this next spring whether the system is operating or not.

The airlines also underwrite operating and maintenance costs and it is for this reason the system may be put on a temporary standby basis. With the valves removed, the salary of one maintenance man would be all that would be required to keep the lines clear so that tests of small sections could be run from time to time.

The whole problem is now being evaluated by the airlines, the city and the CAA. The $64 question is the money. Attitude of the airlines is the key to this, but it is generally accepted that means will be found to provide the funds.

The situation is somewhat disappointing in that Los Angeles hoped to have its FIDO working so as to make a comprehensive study of navigation aid values this winter.

Its high intensity slope line approach lights are being installed; work is starting on high intensity elevated runway lights; installation of surveillance radar already has reached the stage of preliminary tests and the precision approach radar is only a step behind. Barring the unexpected, all will be operating before the season's end.

Twin-Bonanza—This is the latest in small transports, the Beechcraft Twin-Bonanza, or Model 50, a completely new post-war all-metal design. It is a six-place plane, powered by a 260-hp Lycoming engine. Cruising speed is estimated at over 180 mph at a range of about 1,000 miles. It will sell for about $30,000. First flight was made at Beech's Wichita plant on Nov. 15. Deliveries are tentatively scheduled for the early fall of 1950.

CAA Reports 224 Airports Abandoned in Six Months

The large and increasing number of small airports being abandoned as business failures has been the subject of much industry concern in recent months. The paradox of many established airports closing up while numerous new ones are being built under the Federal Airport Program has been largely a reflection of the depressed level of activity in the lightplane field.

But little was known of the actual number and type of fields being shut down until a survey of airport abandonments was completed recently by the Civil Aeronautics Administration.

The CAA survey showed that airports abandoned by their operators during the first six months of 1949 nearly equalled the number of new facilities brought into being under the Federal aid program. Furthermore, CAA sources indicate that the rate of abandonment has increased in the past few months and that since July airports are folding faster than new ones are being created.

Of equal significance to lightplane operations is the unknown number of small fields technically open but with no facilities for refuelling or aircraft servicing. These service-less airports are also reported steadily growing in ranks.

Survey Results. Here's what the CAA study of airport abandonments brought out:

For the calendar year 1948, there were 319 airports of all types abandoned. Of these, 256 or 80% were Class 1 or smaller fields, and 188 or 58.9% were commercial airports open to the public and operated for remuneration. However, the Federal-aid airport program was just picking up momentum in 1948 and a good many new airports were opened during the year, with the result that there was a net increase of 655 in the total number of airports of all types at the year's end.

In 1949 the trend was accelerated. In the first six months of this year there were 224 airports abandoned, and the net increase for the half-year was only 29. This increase, however, is believed to have been more than wiped out by an increase in abandonments since July 1.

Similar to 1948, the record for the first six months of this year showed that the majority—60.7%—of the abandoned airports were of the commercial type and 82% were of Class 1 and smaller size.

There were increases in the percentages of abandonments of other categories of airports, too, notably of private fields, in which the percentage of the total rose from 14.5% in 1948 to 20.5% in the first half of this year.

CAA found that 50% of the municipal airports reported as abandoned in the first six months of 1949 were on property which the operator leased, while in the case of commercial airports, approximately 71% of those abandoned were on land which was leased by the airport operator.

Reasons Why. The average municipal airport abandoned during this period was found to have been a small Class II field, approximately 150 acres, with sod or bare strips and 1½ hangars. The average abandoned commercial airport was found to have been a large Class I (approx. 80 acres), with sod or bare strips, 1½ hangars, on leased land.

CAA, based on its studies, has drawn two conclusions as to the reason for the high rate of abandonment of smaller commercial and private airports, as follows: (a) private resources are insufficient to perpetuate airports except under favorable economic conditions; and (b) airports developed on property not owned by the operator are subject to conditions imposed by the property owner.

In connection with the latter point, CAA pointed out that land value in most sections have increased many times during the past few years and owners of land leased out for airport use have yielded to the temptation to convert their property to farm land, housing developments or other more profitable purposes.

While commercial airports have been abandoned for almost the identical reasons influencing the abandonment of private airports, CAA found they have suffered in many instances from the additional handicaps of poor management and poor location, with the result that they have not generated enough business to be self-sustaining.

Better Facilities. In the category of municipal airports, the study showed that abandonments during the past 12 months have been on the increase also, but in the majority of such cases inadequate airports have been replaced by better facilities, usually projects developed under the Federal-aid airport program.

It was noted that no municipal airport developed under any CAA Federal-aid program has been abandoned except in a very few instances where the sponsor has provided better facilities more in keeping with the community's civil aviation needs.

The study showed a general decrease in military airports, which CAA said was "the natural result of the conclusion of the war and the subsequent demobilization and reduction in aircraft and personnel of the armed forces."

The recent decreases in CAA intermediate fields and miscellaneous government type airports, such as those owned and/or operated by the Forest Service, Park Service, etc., were probably due to replacement of these facilities with better municipal airports provided under the Federal Airport Program.

Airports Abandoned

Jan. 1, 1948 to June 30, 1949

(As reported to CAA)

Region & State	Municipal	Commercial	Private	Military & govt.
REGION 1				
Connecticut	..	....	....	1
Delaware	..	2	1	....
Dist. of Col.	..	....	....	....
Maine	..	5	2	....
Maryland	..	3	1	....
Massachusetts	..	....	....	....
New Hampshire	..	1	....	....
New Jersey	..	2	....	....
New York	1	10	5	....
Pennsylvania	..	5	1	1
Rhode Island	..	....	....	....
Vermont	..	....	....	....
Virginia	..	3	....	....
West Virginia	..	3	2	....
Totals	1	34	12	2
REGION 2				
Alabama	2	5	....	2
Florida	3	16	2	6
Georgia	2	8	5	2
Mississippi	1	10	4	6
North Carolina	2	8	3	....
South Carolina	2	6	1	....
Tennessee	1	6	1	1
Totals	13	59	16	17
REGION 3				
Illinois	1	10	....	13
Indiana	..	20	1	1
Kentucky	..	7	2	....
Michigan	2	2	1	....
Minnesota	2	8	....	....
North Dakota	1	....	1	....
Ohio	2	14	1	2
Wisconsin	..	9	2	1
Totals	8	70	8	17
REGION 4				
Arkansas	..	3	....	1
Louisiana	..	5	4	1
New Mexico	2	7	3	2
Oklahoma	4	15	....	1
Texas	8	38	19	4
Totals	14	68	27	8
REGION 5				
Colorado	..	7	2	1
Iowa	2	15	1	....
Kansas	4	14	9	2
Missouri	..	8	..	1
Nebraska	2	6	3	2
South Dakota	3	6	1	....
Wyoming	..	....	....	....
Totals	11	56	16	6
REGION 6				
Arizona	1	9	6	5
California	5	20	4	4
Nevada	1	....	....	5
Utah	1	....	....	....
Totals	8	29	10	14
REGION 7				
Idaho	1	2	2	....
Montana	2	2	....	....
Oregon	1	1	1	....
Washington	..	6	....	1
Totals	4	11	3	1
TOTALS—ALL REGIONS	59	327	92	65
Percentage of total Abandonments	10.8%	60.2%	17.0%	12%

* * * *

NOTE: **Municipal** airports are those under the jurisdiction of a city, county or political subdivision. **Commercial** include all airports, except municipal and military, open to public and operated for remuneration. **Private** ones do not offer aeronautical services to the flying public.

Federal Farm Plane Project Blasted at NATA Meeting

The development of an agricultural airplane and related spraying and dusting equipment by Texas A. and M. College under joint sponsorship of the CAA and the Department of Agriculture, sparked some excitement at the annual convention of the National Aviation Trades Association in New Orleans, November 16-18.

It all started when John T. Griffin, president of the Massachusetts Aviation Trades Association, blasted what he called "socialized engineering" by the government and specifically criticized the Texas A. and M. project. He said the Flying Farmers of America had been "misled" into endorsing the project and said the aircraft manufacturing industry is heading toward nationalization.

This brought a quick retort from John Burke, operator of Wiley Post Airport, Oklahoma City, who, as a member of the CAA's Aviation Development Committee had taken the lead in pushing the development of an agricultural prototype. Burke said he opposed anything smacking of socialization or of nationalization, but that he thought the government could properly sponsor research work of this type as long as it stayed out of aircraft manufacturing.

Haddaway Resigns. At the banquet that night, George Haddaway, editor and publisher of *Southern Flight* magazine, and also a member of the CAA Aviation Development Committee, was master of ceremonies. He staunchly defended the Texas A. and M. project and then dramatically announced that he was resigning from the CAA advisory committee and said that Lynn Bollinger, co-developer of the Helioplane, should resign too. He implied that Bollinger had inspired Griffin's remarks earlier in the day. Bollinger is also a member of the CAA advisory committee.

Griffin had minced no words in attacking the CAA and the threat of nationalization. He urged strongly that Part .03 of the Civil Air Regulations pertaining to certification of new aircraft should be modified and said that CAA had unduly delayed the development of the Bollinger-Koppen Helioplane.

"Perhaps some of you are not aware that nationalization in the personal aircraft industry is past the stage of being only a threat," Griffin said. "The first steps are actually under way. This does not mean that the Government is about to take over and run the factories themselves. More important is the fact that the design and development of the finished product—the life blood of the industry—is rapidly being assumed as a Government function." He then referred to the prototype bill pending in Congress.

Farmers Misled? "The Flying Farmers of America were recently told by advocates of the Government-financed agricultural prototype that this bit of subsidy and socialization was necessary, because private industry either would not or could not build an advanced design to meet agricultural needs. On the basis of this alleged fact, the Flying Farmers have been misled into providing political support to push the CAA into the business of designing commercial airplanes—a business its engineering department has been trying to get into for years. What are the real facts behind industry's alleged inability to do its own engineering?

"The facts seem to be that the advocates of socialized engineering did not know or adequately investigate what private projects were under way. Naturally, competing designers do not advertise their confidential future plans. The CAA participants should, at this time, have admitted that their own agency was holding back at least one private effort to market a new agricultural airplane—not because they disapproved either the airplane or its proposed method of use, but merely because they haven't yet been able to set forth a new set of rules as recommended by their own administrator, to replace an obsolete set which he admits do not fit the picture.

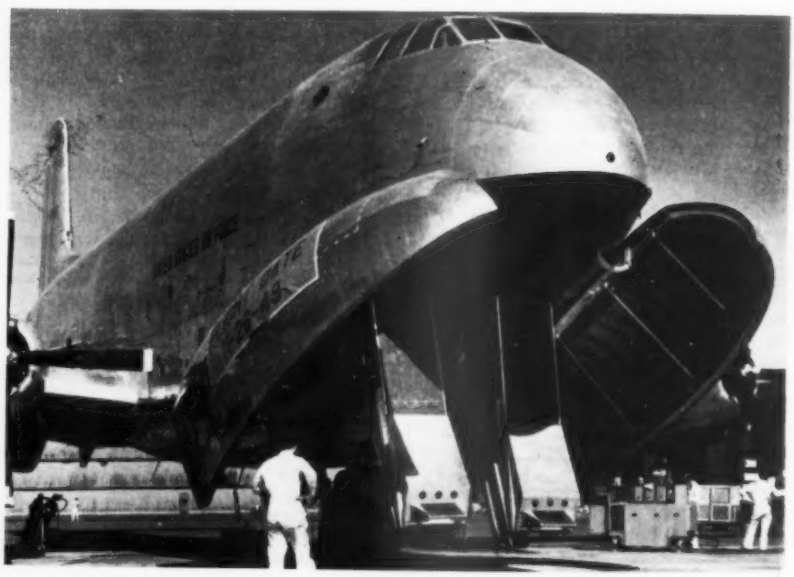
"I am referring to the Helioplane, the brain-child of Koppen and Bollinger—the NATA-endorsed advance in lightplane design which promises so much in new safety and usefulness."

CAA Dawdles. Griffin then related how the builders had tried to get interpretation of CAA regulations to permit them to service-test the Helioplane, and how CAA dawdled for months and the whole project had to be put on ice.

"Thus we have the picture of the CAA regulatory agency with one hand choking to death the very progress it is supposed to encourage, and then reaching into the taxpayers' pocket with the other hand to develop a commercial product—the agricultural prototype—in competition with private business. The conclusion that private enterprise is unwilling and unable to do its job takes on a peculiar aroma in the face of these facts.

"The facts do not support the argument that the competitive business system has failed us here. It is the Government regulatory system that has failed us. If the personal aircraft manufacturers lack courage and capital today, a smothering paternalism on the part of Uncle Sam is to be blamed . . . Every independent qualified group that I know of has concluded that the CAA-CAB system of aircraft certification is holding back design progress.

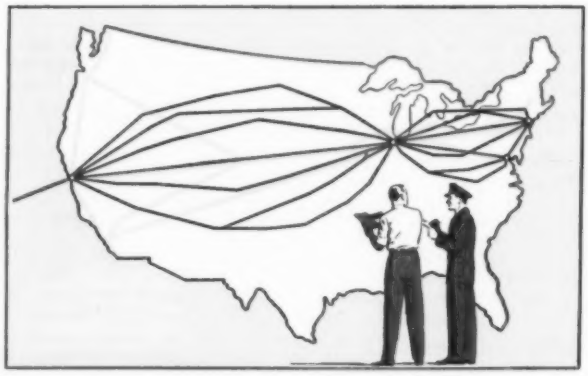
"Please understand, I am not opposing Government support of legitimate research at Texas A. and M. Much can be accomplished by research into problems of agricultural applications by air. Let them build a special airplane there for research purposes—just as the Aero-



Clam-Shell Doors—The "landing ship" characteristics of the giant Douglas C-124, Air Force heavy transport, are emphasized by this photo of the clam-shell doors ajar and the integral loading ramp extended. The C-124, at a gross weight of 175,000 pounds, is the Air Force's largest production transport. Power plants are four Pratt & Whitney 3,500-hp R-4360 Wasp Major engines. The big ship is expected to be able to carry a 50,000-pound payload 850 miles, unload, and return to base without refueling.

United's DC-6 Mainliner 300s fly where weather is best

The "Sunshine Level" *No matter what the weather looks like on the ground, the chances are that sunshine is only 15 minutes away! Your United DC-6 Mainliner 300 will take you quickly up to the "sunshine level," for its regular cruising altitude of 16,000 feet or higher is above most cloud formations. Cabin pressure is controlled to give you low-level comfort at all altitudes.*



Multiple "Sunshine Routes"

No single section of the country has a monopoly on good flying weather. The most favorable conditions may be over Colorado one day — over Montana or Texas the next. United Air Lines, with its radio-marked multiple-route system for long-distance DC-6 Mainliner 300 flights, can choose its own "sunshine route" where the weather is best. Pilots and dispatchers have the aid of expert weathermen in selecting the *best* route.

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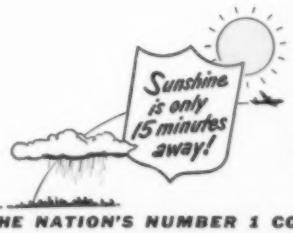
HERE'S HOW UNITED GIVES YOU GREATER YEAR-ROUND DEPENDABILITY

- **Multiple Routes** enable long-range DC-6 Mainliner 300s to fly around the weather and still arrive on time.
- **Over-weather Flying.** You cruise at 16,000 feet or higher in the DC-6 Mainliner 300—at the "sunshine level."
- **The Newest Electronic Aids** permit landings when airports were formerly "closed in."
- **An Operations Control Center** in Denver monitors all flights, constantly checking flying conditions everywhere.
- **Six Billion Passenger-miles of Experience** back United's 10,000 employees —the people who make dependability a fact!



UNITED AIR LINES

THE NATION'S NUMBER 1 COAST-TO-COAST AIRLINE

nautical Research Foundation did in Massachusetts. But let us insist also that they stop short of developing a complete commercial prototype with public funds.

"A prototype means a single unit. There have already been discussions of a proposal to subsidize production of the Texas airplane through the placing of a contract for the production of a limited service-test quantity; such contract price, of course, to amortize the cost of tooling. Naturally the engineering cost is free. Let us not be deceived by language-twisting methods that would call this form of prototype a 'non-competing catalytic agent'."

Lightplane Utility Discussed by ADMA

Ways and means of increasing the utility of lightplanes, and thereby stimulating sales, were a major topic of discussion at the seventh annual meeting of the Aviation Distributors and Manufacturers Association at French Lick, Ind., November 9-11.

Regarded as unusually beneficial by the members attending was the panel discussion on getting more utility from current model lightplanes through the use of accessories, such as new aircraft instruments, cross-wind landing gear, skis for snow operations, and oxygen regulators for over-the-weather high altitude flight.

In addition to getting more usage out of present plane types, the development of new models with better operating characteristics was offered as a sure method of boosting activity in the lightplane field.

Federal government aid in the development of new plane types could do much to revive the shrinking lightplane market, Wayne W. Parrish, editor and publisher of American Aviation Publications, told the group in speaking at the main luncheon session.

Estimating that lightplane shipments this year will be about only 3,500 or less than half the 1948 output, Parrish pointed out that "the outlook is for a continued downward trend in the number of fixed-base operators and airports, due to, if no other reason, than the decline in federally-subsidized GI flight training. The problem resolves itself into two parts. Either the entire personal airplane enterprise (and this extends from the manufacturer to the local operator) must seek its own natural economic level and find its own salvation without any federal help, or the personal airplane business must find some aid from the federal government."

Benefits. Personal plane manufacturers as well as users would benefit from the development of better lightplanes with government assistance, he suggested, since the government is not proposing to go into airplane construction.

"If something good is developed experimentally, private enterprise will have the opportunity to do the building and selling," Parrish declared. "To my mind the personal airplane industry has suffered since the 1920's because almost all of the experimental and developmental work of the government went into the larger and faster types of airplanes and because so very little money and effort has been spent in the personal airplane field.

"Private enterprise is limited in what it can do in this direction. In time it will undoubtedly bring about many improvements but it may be more important to the nation as a whole to have the federal government give an assist in the most costly part of aviation—the development and research part."

One method offered for stimulating the development of better planes was the channeling of federal funds for this purpose to the Army ground forces. "The Army ground forces," Parrish said, "want and need lightplanes. Shouldn't they be encouraged to do for the small plane what the Air Force has done for the larger and faster types, all of which has helped the commercial transport field?"

Conferences Helpful. Upwards of 115 ADMA members and guests attended the French Lick gathering. The private individual conferences between the manufacturing and distributor members proved to be an increasingly popular feature of the convention.

New NATA Officers

President—Arthur R. Currey, Currey Flying Service, Municipal Airport, Galesburg, Ill.

Eastern V. P.—Robert S. Northington, Piedmont Aviation, Inc., Smith-Reynolds Airport, Winston-Salem, N. C.

Western V. P.—William O. Marsh, Marsh Aviation, Inc., Phoenix, Ariz.

Treasurer—Walter Laudenslager, Red Bank Airport, Inc., Red Bank, N. J.

Industrial Vice Presidents—Airports, John Schwaner, Route 1, Sacramento, Calif.; **Sales & Service,** H. S. Herrin, Morrison Flying Service, Helena, Mont.; **Repairs & Maintenance,** Edward Garbacz, Central Flying Service, Little Rock, Ark.; **Instruction & Training,** John T. Griffin, East Coast Aviation Corp., Lexington 73, Mass.; **Transportation,** Joseph Garside, Wiggins Airways, Metropolitan Airport, Norwood, Mass.; **Agricultural,** George Houston, Zigler Flying Service, Jennings, La.; **Insurance,** Sam Freeman, Somerset Airport, Bedminster, N. J.; **Miscellaneous Activities,** George Wedekind, Queen City Flying Service, Lunken Airport, Cincinnati, Ohio.

Regional Vice Presidents (coinciding with CAA regions)—**Region 1,** T. W. Robertson, Hadley Aircraft, Hadley Airport, New Brunswick, N. J.; **Region 2,** Kenneth Brugh, Hawthorne Flying Service, Craig Field, Jacksonville, Fla.; **Region 3,** Joe Hance, Hance Flying Service, Hance Airport, Wyandotte, Mich.; **Region 4,** Bill Cutter, Cutter-Carr Flying Service, Albuquerque, N. M.; **Region 5,** John Clinch, Clinch Flying Service, North Platte, Neb.; **Region 6,** Hank Livermore, El Monte Air College, El Monte, Calif.; **Region 7,** Russell Parkhill, Wenatchee Air Service, Wenatchee, Wash.

Parker Replaces Meixell As Director of NATA

With about 60 registrants from state chapters present, the National Aviation Trades Association held its annual convention November 16-18 in New Orleans and made effective a radical reorganization of its national office.

Norman Larson, of Burbank, Calif., retiring president, announced that Harry Meixell, the executive director for the past few years, requested that his contract not be renewed beyond December 31. Charles E. Parker, of Boston, long identified with private and local aviation and more recently an aircraft broker, was named executive director and it is presumed that he will retain national NATA headquarters in Washington, D. C.

The shift in permanent management of NATA may be taken as a sign that the organization will recoup some of the defections occurring by state groups in the past few years. It brings into active direction, also, a man who has long been closely identified with fixed base operators and their problems.

It was not a very exciting convention, due largely to the small attendance, the depressed state of local aviation and the concentration of policy problems within the executive committee. It seemed clear that the majority of NATA leaders were more anxious to get their national organization on sound footing than anything else. In view of Parker's background and experience, there would seem little doubt that NATA will have a new lease on life after the first of the year.

ADMA Elects Van Dusen

G. B. Van Dusen, president of Van Dusen Aircraft Supplies, Inc., Minneapolis, Minn., was elected president of the Aviation Distributors and Manufacturers Association at the group's seventh annual meeting concluded at French Lick, Ind., on November 11. He succeeds Richard N. Bomberger, vice president and director of sales of Sensenich Corporation.

Elected vice presidents of ADMA were R. W. Richardson, manager, aviation products division, Goodyear Tire & Rubber Co., and G. W. Jalonick III, vice president-sales, Southwest Airmotive Co.

New ADMA directors are: until 1951, John D. Harris, Pacific Airmotive Corp.; until 1952, Frederick H. Lee, R. M. Hollingshead Corp.; A. E. R. Peterka, Lamson & Sessions Co., Cleveland, O.; Tom Davis, Piedmont Aviation, Inc.; and Arthur C. Harvey, Air-Parts, Inc., Glendale, Calif.

At ADMA's Seventh Annual Meeting

RICHARD BOMBERGER, Sensenich Corp., Lancaster, Pa., retiring ADMA president (left), and H. Donald Richards, Philadelphia, Pa., executive secretary.

ADMA
23 years of Engineering Experience
22 years of Manufacturing Experience
22 years of Sales and Merchandising
AVERAGE FOR EACH COMPANY
27 ADMA MANUFACTURERS
WHOSE LITERATURE IS EXHIBITED
HERE. REPRESENT
621 years of Engineering Experience
579 years of Manufacturing Experience
585 years of Sales and Merchandising

UNUSUAL EYECATCHER at the seventh annual meeting of the Aviation Distributors and Manufacturers Association at French Lick, Ind., November 9-11, was this novel display sign hung in the main conference room to emphasize the experience represented by member companies.

G. B. VAN DUSEN, Van Dusen Aircraft Supplies, Inc., Minneapolis, Minn., newly-elected president of ADMA.

A. M. RECKER, Goodyear Tire & Rubber Co., Akron, Ohio, (left), and Jack Leighty, Champion Spark Plug Co., Toledo, Ohio.

C. F. CORNISH, director of the Indiana Aeronautics Commission, Indianapolis, Ind.

AMONG THE NEW OFFICERS and directors elected were, left to right, George W. Jalonick, III, Southwest Airmotive Co., Dallas, Tex., vice president; A.E.R. Peterka, The Lamson & Sessions Co., Cleveland, Ohio, Frederick H. Lee, Jr., of R. M. Hollingshead Corp., Camden, N. J., and Tom Davis, Piedmont Aviation, Inc., Winston-Salem, N. C., all directors with terms expiring in 1952.

DAN S. TILDEN, Eclipse-Pioneer Division of Bendix Aviation Corp., Teterboro, N. J.

R. S. NORTHINGTON, Piedmont Aviation, Inc., Winston-Salem, N. C. (left), and Earle M. Scott, of Scott Aviation Corp., Lancaster, Pa.

WAYNE W. PARRISH, editor and publisher of American Aviation Publications.

C. CHARLES CRAWFORD, C. J. Hendry Co. (left), and John G. Bausher, of W. Harris Thurston, Inc., New York, N. Y.

FREDERICK H. LEE, JR., of R. M. Hollingshead Corporation, Camden, N. J.

RAY SNYDER, president of Snyder Aircraft Corporation, Chicago, Illinois.

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CAB Proposes New Formula For Atlantic Mail Rates

Foreseeing that its present trans-Atlantic mail rates, which are based on a plane-mile formula, will become inadequate as the airlines acquire larger aircraft to supply equivalent capacity with lesser mileage, the Civil Aeronautics Board on November 14 announced a new mail pay formula related directly to space availability.

The new formula, which was made effective November 1, was proposed in connection with show cause orders in which the Board found that Pan American Airways' temporary trans-Atlantic mail rate for the period from January 1, 1949, through October 31, yielded the carrier approximately $2,500,000 less than it needed, and that Trans World Airline had received about $1,500,000 in excess of its requirements.

The new formula proposes an effective rate per designated mile flown for each of the three carriers, as follows:

Pan American: 2.63¢ times the lower of 32,240,000 or the available seat miles flown in scheduled trans-Atlantic passenger service during each month, divided by the designated miles flown during the month.

American Overseas: 1.657¢ times the lower of 20,675,000 or the available seat miles flown in scheduled passenger service during the month, divided by the designated miles flown during the month.

TWA: 1.900¢ times the lower of 32,600,000 or the available seat miles flown in scheduled trans-Atlantic passenger service during the month, divided by the designated miles flown during the month.

Direct airport-to-airport mileages will be used in computing the rates.

The available seat miles flown will be computed, the order said, by multiplying the scheduled mileage flown in passenger service during the month with each aircraft type by the standard available seats for that type, as follows: DC-3, 21 passengers; Convair Liner, 40; Martin 202, 40; DC-4, 40; Constellation, 43; DC-6, 43, and Boeing 377, 61.

New Factor. Mail rates in the past had frequently been tied in with passenger load factors, but it was believed this was the first instance in which space availability had figured as a factor in devising mail rates.

The Board said a further analysis of the mail pay requirements of the three carriers on and after last January 1 had shown that: PAA's temporary rates "appear to be materially lower" than the rates it may reasonably be anticipated will be established as final mail rates for the period; TWA's rate was "substantially higher" than it probably should have been; and AOA's rate appeared to be just what it should have been.

Finding that TWA's temporary mail rate had yielded it an "excessive rate of return," the Board set its mail pay requirements for the 10-months period at $6,193,000, or approximately $1,500,000 less than it had been entitled to under the then existing rate.

Pan Am Increase. Pan American's need for the period, on the other hand, was found to be $8,090,000, or approximately $2,500,000 more than it had received under the temporary rate. CAB pointed out that Pan American has "substantial immediate cash requirements" in connection with the purchase of Boeing Stratocruisers, and that the plane-mile temporary rate in effect during the period had unduly restricted its freedom to vary the composition of its fleet and had resulted in lower mail pay than intended due to the larger capacity of the Stratocruisers.

BEA Feels Helicopter Could Beat Jets on Paris Route

Great Britain may be aiming at making its mark in air transport by its jet developments, but British European Airways has an eye on the passenger helicopter, a paper delivered by L. S. Wigdortchik before the Helicopter Association of Great Britain this autumn reveals.

Highlight of the paper is the BEA engineer's conclusion that London-Paris should be the greatest helicopter route in the world and that the operation of such an air service would establish the British helicopter industry before all eyes.

Wigdortchik points out that elapsed time of airplane schedules between London and Paris, center of city to center, is 3 hours and 35 minutes. Helicopter time, from same center of city to center, would be 2 hours and 15 minutes. And when the faster jet transports come, only 15 minutes of the 3 hours and 35 minutes will be saved, still leaving the helicopter with an advantage of more than an hour.

To clinch his arguments, the British engineer calculates that a British fleet of 11 helicopters could make a profit of 20% on a 70% load factor at today's fare level.

Night Operation—This time exposure traces the flight path of a Los Angeles Airways' Sikorsky helicopter as it makes a landing and take-off from the top of the Los Angeles Post Office building. Outlined in sharp contrast to the darkened city are the white traces left by the lights on the helicopter tail and landing gear. The bright spot shown above the building, represents a point where the helicopter hovered for a moment before continuing its descent. Having solved the problems of night flights, LAA is now attempting to establish instrument flight operations, a pioneering task. About 25 landings have been made in zero weather conditions as a part of the test program.

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THAT'S ***TWA***'S PHONE NUMBER IN NEW YORK. LOOK UP NUMBER OF NEAREST OFFICE IN YOUR COMMUNITY. KEEP IT HANDY. TO GET AIR CARGO ON THE WAY ALWAYS BE SURE TO PHONE ***TWA***.

WHAT HAS DEVALUATION DONE TO OVERSEAS RATES?
LOWERED THEM SUBSTANTIALLY! ***TWA*** AIR CARGO RATES TO ALMOST ALL OVERSEAS PORTS HAVE BEEN SLASHED TO NEW, ROCK-BOTTOM LOWS. ASK FOR LATEST SCHEDULES NOW.

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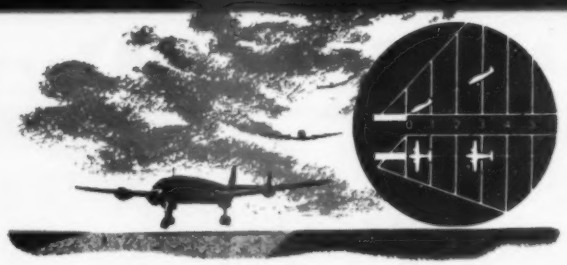
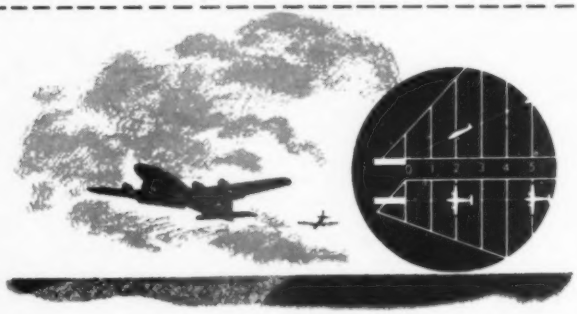
GCA speeds up IFR Traffic 300%

Los Angeles Municipal Airport is closed or "on instrument" 20% of the time. During this bad weather period, the airport operates at only 60% efficiency. When a $20,000,000 airport functions at only 60% efficiency, the airlines, air passengers and the taxpayers stand the loss. One airline conservatively estimated it lost $200,000 at one airport during a 90-day period because of bad weather. And this does not consider the incalculable loss of passenger goodwill resulting from schedule irregularity.

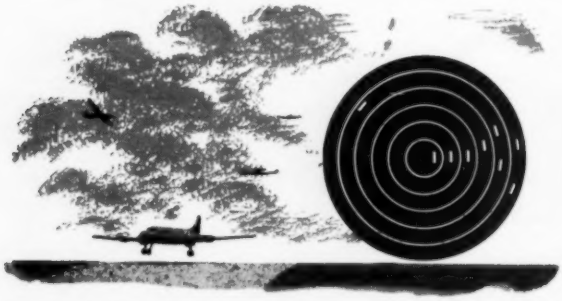
To master bad weather and its costs, GCA is being installed at L. A. Municipal Airport and 82 other airports across the nation. GCA is both a fail-safe, precision radar landing system and a great factor in air traffic safety, operation and efficiency. GCAirports can operate near 100% efficiency in all weather. With GCA, airlines can be on schedule with safety . . . and with profit.



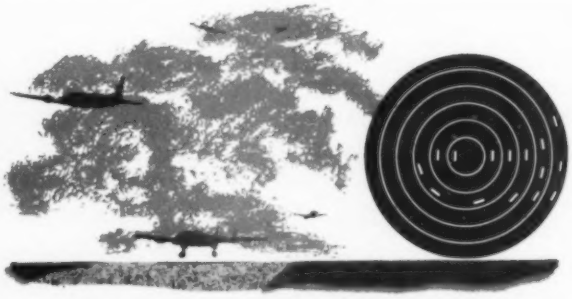
GCA Unstacks Aircraft a Minute Apart—4 Times Present IFR Limits. At most airports, CAA IFR procedure permits aircraft to unstack at 4 minutes minimum spacing. With GCA's precision scopes showing each aircraft's position in 3 dimensions, the new CAA Radar Procedure Manual permits unstacking at 1 minute spacing . . . 4 times as fast with GCA. Actually, with GCA, stacks seldom develop, because GCAirports handle IFR traffic with clear weather speed and safety.



GCA Speeds Up IFR Landings and Take-Offs 300%. In IFR weather, once an aircraft reports over the Downey marker on final approach at Los Angeles, all take-off aircraft are held. At time of report, the landing aircraft is 5 minutes – 15 miles – from touchdown. And should the landing aircraft miss first approach, present practice at Los Angeles keeps the take-off aircraft grounded until a successful approach and landing is made. With GCA, planes can take-off until landing aircraft is within 1 minute – 3 miles – from touchdown.



GCA Isolates Rogue Aircraft. When an unidentified aircraft flies into a crowded airport area, GCA spots its position immediately. Unidentified "rogue" aircraft accidentally flying off course into the Los Angeles Airport area could conceivably disperse a dozen large transports at incalculable cost and jeopardy. GCA's high powered search scopes bring the rogue under control at once, and any danger of collision is eliminated.



GCA Eliminates Costly Turn-Backs and Safety Climbs. In IFR weather, the bogey of all pilots is the tedious, time-wasting climb to avoid stacks and other aircraft. Departing aircraft must fly "over the top"—sometimes 14,000 feet—before proceeding on course. With GCA, departing aircraft must keep only a 3-mile horizontal distance from other aircraft. They can because tower GCA gives them the relative bearing and distance of other aircraft. Also, departing aircraft under GCA surveillance take off 1 minute apart – 3 times present CAA limits.

PIONEER DEVELOPER AND MANUFACTURER OF GCA FOR THE USAF AND CAA

GCA *Gilfillan* LOS ANGELES

Board Studies Route Sale Effects on Western Pilots

The question of whether any employes of Western Air Lines were adversely affected as a result of the sale of WAL's Route 68 (Denver-Los Angeles) to United Air Lines in 1947 was aired last month at a hearing before Civil Aeronautics Board Examiner Thomas L. Wrenn.

The hearing was requested by the Air Line Pilots Association under a proviso in the sale agreement that permitted a petition for relief if subsequent events should demonstrate that certain employes had been adversely affected by reason of the sale.

ALPA claimed that 23 low-seniority pilots of Western lost their jobs and many others were demoted as a result of the route transfer. To this claim, WAL's Arthur F. Kelly, vice president-sales, answered with an exhibit showing that the pilots named by ALPA as the aggrieved parties had, almost without exception, drawn more pay in 1947 and 1948 than in 1946, the year before the route sale.

Kelly said most of the pilots furloughed on September 15, 1947, shortly after the sale, were furloughed simply because of a seasonal decline in business and low load factors. He conceded that WAL had made personnel reductions in the fall of that year but said they were "system reductions, pure and simple . . . for the very survival of the airline."

Pointing out that in late 1946 Western found itself in the same position as many other airlines—overstaffed—Kelly said a cost reduction program was then initiated which resulted in a reduction in WAL payrolls from 2,486 persons to 1,290 over a period of 25 months.

Certain studies which ALPA sought to have admitted into the record relative to purported adverse effects on WAL operating personnel as a result of the route sale were ruled out because of their "hearsay nature."

It was brought out that Western pilots and United pilots are not in agreement as to the number and identity of pilots allegedly affected adversely by the route sale and had submitted the question to a National Mediation Board arbitrator.

CAA Bans Military Combat Planes at National Airport

Because of increasing congestion at Washington National Airport, the CAA issued an order which would ban operation of military combat aircraft in to Washington National Airport. As originally released the order "includes not only service planes but military-type aircraft which have been certificated by the CAA for civil operation." Following immediate protests from industry groups and individuals who were operating converted bombers as executive transports, CAA modified its ruling to permit this type aircraft to continue using WNA.

In the meantime The Port of New York Authority issued orders which prohibit military fighter type aircraft from operating into La Guardia Field and New York International Airport "regardless of ownership."

Both rulings were the result of the Eastern Air Lines accident at WNA in which a P-38, operated by a Bolivian pilot, crashed in mid-air with the commercial airliner. The orders at both points leave the private operators of converted combat airplanes with little choice of landing places since, as civil aircraft, they are not permitted on military fields.

Military planes involved in the orders have several alternate fields both in New York and in the Washington area.

CAB Approves Transfer Of Route Segment by TWA

Transfer of Trans World Airlines' operating rights between Phoenix and Las Vegas to Bonanza Air Lines was approved by the Civil Aeronautics Board last month, conditional upon the elimination from the transfer agreement of a clause prohibiting Bonanza from transferring the authorization to any carrier other than a feederline.

The approval, when made final, will fulfill a condition attached to CAB's decision in the Additional California-Nevada Service Case which awarded Bonanza local operating rights between Reno and Phoenix, subject to a voluntary transfer of the Las Vegas-Phoenix segment of TWA's routes to Bonanza.

CAB CALENDAR

Dec. 5—(Docket 3244) Oral argument before the Board in Transocean Air Lines, Inc.-Enforcement Proceeding. 10 a.m., Room 5042, Commerce Building, Washington, D. C.

Dec. 5—(Docket 2870 et al.) Hearing on applications of Western Air Lines and Inland Air Lines for Final Mail Rate for a past period. Tentative. Examiner James M. Verner. Postponed from November 14.

Dec. 19—(Docket 3695) Hearing on application of Florida Airways for final mail pay settlement. Tentative. Examiner R. Vernon Radcliffe. Postponed from November 14.

Jan. 4—(Docket 3500) Hearing in National Airlines Route Transfer Case. Tentative.

Jan. 9—(Docket 946 et al.) Hearing in New York City Area Helicopter Service Case. Tentative. Examiner Ferdinand D. Moran. Extended from December 5.

Jan. 9—(Docket 3717 et al.) Hearing on applications of five Cuban companies for Cuba-Florida foreign air carrier permits. Tentative. Examiner Paul N. Pfeiffer.

Jan. 9—(Docket 1705 et al.) Hearing on CAB Investigation of Accumulation, Assembly, and Distribution Tariff Rules. Tentative. Examiner Herbert K. Bryan.

Jan. 16—(Docket 2832) Hearing on application of Nationwide Airlines, Inc., for certificate to operate between points in Michigan. Tentative. Examiner R. Vernon Radcliffe.

Feb. 6—(Docket 2724) Hearing in Colonial Airlines, Inc.-Final Mail Rate Case. Tentative. Examiner R. Vernon Radcliffe.

Aviation Calendar

Dec. 5-11—New Orleans Aviation Week, New Orleans, La.

Dec. 8-11—"Wings Over the Nation" 11th annual celebration (Long Beach Jr. C. of C. auspices), Long Beach, California.

Dec. 9-10—Convertible Aircraft Congress (Auspices of Philadelphia Chapters, IAS, and American Helicopter Society), Philadelphia, Pennsylvania.

Dec. 15-16—Air Transport Association annual meeting, Carlton Hotel, Washington, D. C.

Dec. 16-17—National Aeronautic Association national aviation meeting, Hotel Statler, Washington, D. C.

Dec. 17—Institute of the Aeronautical Sciences 13th annual Wright Brothers lecture, U. S. Chamber of Commerce Building, Washington, D. C.

Dec. 17—Annual Wright Brothers Memorial Dinner, sponsored by Aero Club of Washington, Hotel Statler, Washington, D. C.

Jan. 9-13—SAE annual meeting and engineering display, Hotel Book-Cadillac, Detroit, Michigan.

Jan. 10-11—Florida Flying Alligator Club's "Rituals & Frolics," Melbourne, Fla.

Jan. 13-15—18th Annual All American Air Maneuvers, Miami, Florida.

Jan. 23—Institute of the Aeronautical Sciences annual Honors Night dinner, Hotel Astor, New York, N. Y.

Jan. 23-26—Institute of Aeronautical Sciences 18th annual meeting, technical sessions, Hotel Astor, New York, N. Y.

Feb. 18-26—1950 New York Airplane Show in conjunction with National Sportsmen's and Vacation Show, Grand Central Palace, New York, N. Y.

March 6-9—American Road Builders' Ass'n annual meeting (including Airports Div.) Netherlands Plaza Hotel, Cincinnati, Ohio.

April 4-6—ATA annual engineering and maintenance conference, Hotel Continental, Kansas City, Missouri.

April 10-14—American Society of Tool Engineers exposition, Convention Hall, Philadelphia, Pennsylvania.

April 16-20—American Association of Airport Executives annual meeting, Neil House Hotel, Columbus, Ohio.

April 17-19—SAE aeronautic meeting and aircraft engineering display, Hotel Statler, New York City.

June 4-9—SAE summer meeting, French Lick Springs Hotel, French Lick, Indiana.

June 10-13—National Aeronautic Association 28th annual convention, Hotel Statler, St. Louis, Missouri.

International

Dec. 10—IATA COM European.

Jan. 5—ICAO Legal Committee meeting, Taormina, Italy.

Jan. 24—ICAO Council, ninth session, Montreal.

Feb. 14—ICAO Meteorological Division meeting, Paris.

March —ICAO African-Indian Ocean Fixed Services meeting, location undecided.

April —ICAO Caribbean regional meeting, location undecided.

June —ICAO Fourth Assembly, Montreal.

June —ICAO Legal Committee meeting, Montreal.

November —ICAO Middle East regional meeting, tentative, location undecided.

November —ICAO Airworthiness/Operations meeting, location undecided.

Between the Lines

By James J. Haggerty, Jr.

The Aberdeen 'Brain'

The Weapons Systems Evaluation Group, one of the myriad committees which populate the Pentagon, is an organization composed of representatives of the three services and a number of civilian scientists. Its job, as you might guess, is to evaluate the weapons systems of the various services to determine their worth to the overall war plan.

Lately the WSEG has been coming in for some harsh words, particularly during the B-36 investigation which livened the early fall months. Specifically, there were a lot of folks who were annoyed with the WSEG because it hadn't been system-evaluating hard enough. More specifically, there were a few caustic comments passed on the Group's inability to come up with an evaluation of the controversial B-36.

Criticism is a wonderful spur in the Department of Defense, because the boss, whip-cracking, head-knocking, directive-issuing Louis Johnson is extremely conscious of the public barometer. The WSEG had to get some evaluating done and quickly, before hard-hitting Carl Vinson, chairman of the House Armed Services Committee and no fan of Johnson's, came back to Washington and started asking what progress had been made.

Brainstorm. Somebody was suddenly smitten with a brainstorm. "Look," we can hear him saying, "Up at Aberdeen the Army has an electronic gadget which computes logistic problems and shell trajectories and whatnot. Why can't we put this gimmick to work on the B-36 evaluation?"

So that's just what they did. They sent twelve of the boys up to the Army's Aberdeen Proving Ground with a couple of brief cases full of performance data and then started feeding the data into this gadget. Then the WSEG shyly called a press conference, so that the public could share in the exhilarating knowledge that science and electronics had solved the vexing problem of deciding whether the B-36 was worth the billion-plus we're spending on it.

The Word. Anyway, here's the word from the WSEG on how the Aberdeen "brain" works. Suppose you want to find out whether a Navy McDonnell F2H Banshee can intercept and shoot down a B-36. The ignorant layman would probably suggest that they go up in the air and fight it out with camera guns. This is a patently ridiculous suggestion, the WSEG will assure you—such tests would be "inconclusive." Besides, you might get the wrong answer.

So here's what you do. First you take the data on a World War II fighter-bomber dogfight, or a number of such fights. Then you bring it up to date by modernizing the performance data; that is, instead of, say, the performance data for a German ME 109, you insert the comparable Banshee info, and in place of the B-17 or B-24 figures, you insert B-36 data. Then you juggle a few more tumblers to compensate for improved radar, fire control systems, etc. Having inserted all the figures you can lay your hands on, you crank the thing up and out comes a couple interception report, suitable for framing.

WSEG is now using the brain to run some B-36 vs. Banshee tests, with Banshee data supplied from Navy interception tests conducted at Patuxent Naval Air Test Center, Md., and B-36 figures presumably from the Air Force's bottomless supply of B-36 figures. The gadget is not confined to evaluating interceptions, however; it has a much broader scope. It can evaluate the whole picture of global air strategy, and WSEG plans to make just such an evaluation. The Joint Chiefs of Staff will be presented with a preliminary report in January, and by April the WSEG will have cleared up the whole problem, in time for preparation of the 1952 budget.

More For B-36. It will be a little late for the 1951 budget since the Department of Defense will be defending that in Congress from January on. And that budget, we are informed, contains provisions for another good chunk of B-36 money. Wouldn't it just throw things into a tizzy if the gadget went amok and came up with a recommendation to kill the B-36 program? We think there is little danger of that, however.

Now, don't get us wrong. We're not spoofing the potentialities of the "brain." We're among the greatest fans of the science of electronics. It took us years to grasp the basic principles of radio and we're still a little awed every time we turn the knob. We can't even begin to cope with television. And we don't

Arctic Neptune—The Navy's Lockheed P2V Neptune has been equipped with ski gear for Arctic operation. The 16-foot skis are fully retractable, tucking into fairings underneath the engine nacelles, with little or no drag. Notice the pencil-like protrusion in the tail. The Navy is not talking about it and wishes the picture had not been released. Some time ago a similar device was identified as a magnetometer, an instrument for locating ore deposits. You figure it out.

question at all the abilities of the gadget to run an interception problem, if proper and accurate data are inserted.

Well, anyway, it's good to know that the WSEG is finally evaluating some systems, even if they are only electronic evaluations. And we're glad to know that the Aberdeen "brain" is so versatile. The thing has almost unlimited possibilities.

You could even put the thing on an international scope. If we could get the Russians to go along with its findings, we could end forever the bloody and costly business of war. We could challenge the Russians to a bloodless duel at Aberdeen, a representative of each nation appearing with a few reams of statistics on national resources, strengths of armies, navies and air forces, number of stockpiled atom bombs, etc. Then we could crank up the gadget and get a complete report on what would be the outcome of World War III. Obviously, the nation which got the short end of the report would shy from an encounter. But you have to feed the gadget the straight dope.

Vulnerability Issue

You can look for some large-scale viewing-with-alarm on the question of strategic vulnerability when Congress reconvenes in January, because a new organization, known as the Unofficial National Defense Committee intends to make quite an issue of it. Ordinarily, the Department of Defense can shrug off such organizations, but this one is going to be hard to ignore, because included on its roster are 62 Senators and 281 Representatives, headed by Sen. Warren G. Magnuson of Washington.

The committee is alarmed by the persistent rumors that the Air Force is planning to move the entire industry inland, away from areas of "relative strategic vulnerability."

Two Goals. One of the committee's goals is to seek legislation to provide for the strengthening of our Alaskan, Atlantic seaboard and Great Lakes defenses, a noble cause in which we concur wholeheartedly. The other goal, however, is to obtain a clear and specific agreement "that aircraft and other plants will receive future contracts on the basis of quality, cost and time competition." Anyone familiar with the business of procuring airplanes knows that this is not practicable and would only have the effect of hamstringing the services in procuring the best types of planes available.

Despite the assurances of the Air Force that it has no plans calling for mass strategic relocation of the aircraft industry, the committee cites a number of half-truths as proof that it does. The Council of State Chambers of Commerce is preparing a rebuttal to the committee's arguments, and we hope it succeeds in toning down the alarm of these Congressmen. If they want to strengthen our defenses, that's fine, but if they try to pass laws whereby aircraft contracts will be doled out geographically, that's trouble.

Production Spotlight

Backlog Jumps: Pratt & Whitney Aircraft's military engine backlog took a big jump within the fortnight with two new contracts totaling more than $20,779,000.

The first of these was $10,410,400 for production of the **R-4360-55C** engine, a new version of the Wasp Major engine which powers the Air Force's piston-engine bombers and a number of transports. Details of the engine were not released, but the "C" series of the R-4360 has previously been described as a group of compound engines capable of delivering up to 5,500 horsepower. The "C" series is a refinement of the VDT (variable discharge turbine) project, using new methods of supercharging and newly-designed supercharging units.

The second P & W contract placed in production a new version of the basic British Nene jet design. The new version is the J-48P6, for which the Navy let a contract calling for the production of 264 units as a cost of $10,368,600. The J-48 is an advanced development of P & W's J-42 Nene and a parallel development of Britain's Rolls Royce Tay. It is a centrifugal flow turbo-jet, with a thrust rating believed to be in the neighborhood of 7,500-8,000 pounds. The engine will probably be used in the Navy's Grumman F9F Panther, which now uses the J-42 Nene, and in the Air Force's North American F-93, if the latter is placed in production.

Trainer Switch: *There has been quite a bit of competition for the Air Force's trainer business. Fairchild Engine and Airplane Corp. led the pack with its T-31, but Douglas Aircraft Co., Beech Aircraft Corp. and Texas Engineering and Manufacturing Corp., with the XT-30, the T-34 (a Bonanza modification), and the T-35 (a version of the Swift), respectively, were all in the picture.*

Now, apparently, a dark horse has stolen the race. The Air Force has decided to spend $7,630,000 for the overhaul and reconditioning of 700 North American T-6s, war-time Texan trainers. The large number of T-6's to be "remanufactured," plus the fact that the Air Force is using the money formerly allocated to the purchase of a new, post-war trainer, would seem to indicate that the T-6 will be the standard trainer.

North American will get the major slice of the remanufacturing business, with an order for the overhaul of 330 of the 700 trainers. The remaining planes will be divided among several companies.

Latest Superfort: Boeing Airplane Co. has started delivery of its new B-50D to the Air Force. The "D," latest version of the Superfortress, features dropable 700-gallon fuel tanks, located outboard of the No. 1 and No. 4 engines. The tanks increase the normal range to "over 6,000 miles." The "D" grosses 164,500 pounds, has a top speed of 400-plus mph, and can carry a total bomb load of 28,000 pounds by leaving off the tanks and carrying two 4,000-pound bombs in the fittings. Other changes include installation of in-flight refueling equipment, new radar equipment, a new molded plexiglas nose section, a modified four-gun top forward turret, and the Boeing-developed single-point ground refueling system.

Flying Wing: *The Air Force has sharply cut back its Flying Wing program. Northrop was scheduled to convert nine B-35 piston-engine-powered Wings to jet power, but the Air Force has now decided to go ahead with only one conversion to evaluate the design. The remaining Wing will be a YRB-49 reconnaissance bomber. Plans to install the 10,000-hp Northrop Turbodyne turbo-prop in one of the Wings were also canceled.*

Industry Briefs: **Curtiss-Wright Corp.'s** Propeller Division has received a $2,177,993 contract for the design, development and delivery of 24 19-foot propellers of the type used on the Convair B-36 . . . **Grumman Aircraft Engineering Corp.** will convert 20 Grumman JRF-4's and -5's to "N" models for the Navy at a cost of $560,310. The "N" is an all-weather version and the conversion involves structural strengthening and installation of new electronic equipment, as well as general maintenance . . . **AiResearch Manufacturing Co.** received a $535,968 Navy contract for 15 gas turbine compressor units, 16 air turbine starters and 16 motor-actuated shut-off valves . . . AiResearch has received $2,500,000 worth of new business since Oct. 1 . . . **Kaman Aircraft Corp.** has received orders for helicopters from both the Navy and Coast Guard, raising the company's military backlog to $106,000.

—J. J. H.

ADMINISTRATIVE

Stanley J. McCutcheon, a native of Alaska, has been elected president of Alaska Airlines to succeed **James A. Wooten,** resigned. McCutcheon is a member of the firm of McCutcheon and Nesbett of Anchorage, which has for some time acted as counsel for the airline.

OPERATIONS-MAINTENANCE

John W. Eckert, who has been with American Overseas Airlines and American Airlines since 1942 in New York and Bermuda, has been named AOA manager of operations at New York, directing station operations at both La Guardia and Idlewild.

E. K. Glaves has been named regional personnel manager for American Airlines' central region with headquarters in Chicago. **J. C. Ewing** will serve under him as personnel representative. Glaves has been with AA 14 years, serving for the past five years in the general office of the personnel department.

J. B. Kenney, formerly senior operations agent for Capital Airlines in Mobile, has been appointed district operations manager of Capital's new station at Newport News-Hampton, Va.

Margaret Kerrigan has been appointed supervisor of stewardesses for American Airlines at Tulsa, replacing **Jean Baumgardner,** who resigned to get married. **Joan Murdock** is AA's new supervisor of stewardess service at Boston, replacing **M. E. Sorenson,** who is returning to line duty based at New York.

Walter J. Dane, now with Eastern Air Lines at Brunswick, Ga., has been promoted to station manager at Allegheny County Airport, Pittsburgh, effective December 1, when Eastern inaugurates service there.

Mark J. Maidel, former regional vice president-operations of Scandinavian Airlines System, has joined Lockheed Aircraft Service as works superintendent.

William R. Armstrong has been appointed division station manager in charged of National Airlines operations at New York International Airport.

G. King Taylor has been appointed division station manager in charge of National Airlines operations at Jacksonville, Daytona Beach, Orlando, Lakeland, Valdosta, Charleston, Savannah, Wilmington and New Bern. He will continue as station manager at Jacksonville.

Robert O. Baumgartner has been named station manager for National Airlines at Daytona Beach, succeeding R. C. Wiley, resigned.

Improved Service— Recently United Air Lines officials met with Railway Express Agency personnel in several major cities to point out the manner in which schedule reliability has improved during the past year. Shown in this photo, left to right, are Capt. Carl M. Christenson, UAL flight safety engineer; W. J. Gould, REA's Chicago airport agent; E. L. Dare, staff assistant, UAL air express; H. L. Buckley, supt. of REA's commercial division; M. P. Bickley, manager of cargo sales, United, and C. C. Gaudio, REA's manager of air express.

TRAFFIC & SALES

Harvey Hancock, formerly assistant to the president of United Air Lines and for the past three years director of traffic and public relations for the Pacific-Alaska Division of Pan American Airways, will open his own public relations office in San Francisco January 1. One of his clients will be PAA on a consulting basis.

Lefferts

Eugene Lefferts has been appointed district manager for National Airlines in New York. Before joining National, Lefferts had served for three and one-half years with Pan American Airways, the last 18 months of which he spent in South Africa as sales manager in that area. He will be in charge of sales and sales promotion for National in the New York area.

Alfred J. Bovier, formerly director of schedules and tariffs for Peruvian International Airways, has been appointed traffic manager of Skyways Freight Forwarding Corporation in New York. He has been in transportation 26 years.

E. J. Bissell has been named district traffic manager for Chicago & Southern Air Lines at Houston. He was formerly in the company's Kansas City office.

Earl Pizzo, reservations supervisor for Delta Air Lines at New Orleans, has been promoted to sales representative, succeeding **Joe Pontiff,** who has been appointed cargo sales representative.

John Cahlander, formerly with Trans World Airline in San Francisco, is now with American Airlines' reservations office in Baltimore.

Charles Slauson, Delta Air Lines reservations supervisor at Birmingham, has been transferred to Miami, and **Henry Grady Jones II,** former reservations supervisor at Shreveport, has transferred to Chicago.

Francis W. Gillespie has been promoted from assistant traffic and sales manager for Eastern Air Lines in Louisville to traffic and sales manager in Pittsburgh. He joined EAL in 1940.

Clive Adams, who has been traffic manager of British European Airways' continental services, is in charge of BEA's new U. S. ticket office in New York.

R. W. Hunt, formerly revenue accountant for Southern Airways, has been advanced to the position of traffic and sales manager. Working under him as acting sales representative will be **L. D. McDonald,** formerly chief flight agent at Atlanta.

R. K. (Bob) Miller has been appointed assistant superintendent of interline and agency development for Mid-Continent Airlines.

F. L. C. Versteegh, KLM Royal Dutch Airlines representative in Los Angeles for the past three years, has been appointed west coast representative. **James H. Hunter** has been placed in charge of the Los Angeles office.

Margaret Kerr Boylan, formerly a special representative of Northeast Airlines in New York and Boston, has been appointed public relations manager for the carrier in Washington.

Donald S. McLauchlin has been appointed as general supervisor of advertising for Trans-Canada Air Lines. He formerly was advertising manager for C-I-L "Cellophane."

PEOPLE

C. W. Smith, air transport sales consultant, has been retained by Chicago and Southern Air Lines for specialized tariff and sales work.

James O'Connor, formerly with American and Continental Air Lines, has been appointed cargo representative for KLM Royal Dutch Airlines in Chicago.

MANUFACTURING

Fred N. Dickerman has been promoted from assistant chief engineer to chief engineer of Chance Vought Aircraft Division of United Aircraft Corporation. He joined the company as a draftsman in 1933. **Raymond C. Blaylock,** formerly director of engineering of Curtiss-Wright Airplane Division, has gone with Chance Vought as chief of design.

Dickerman

Joseph Murray Drulinger, formerly with Douglas Aircraft's industrial engineering department, has been appointed chief industrial engineer for Northrop Aircraft. He has been in aviation 20 years and has held posts as chief industrial engineer and factory superintendent for Convair in San Diego and Nashville and manager of Lockheed Aircraft's industrial engineering department.

J. H. Berry has been appointed to the newly-created position of director of manufacturing for A. V. Roe Canada, Limited. He has held several important posts with the Canadian government since 1940 and before that was with General Motors for 16 years.

Others in the News

Dr. Karl T. Compton is on leave of absence as chairman of the armed forces Research and Development Board until President Truman appoints a successor. He asked permission to resign because of ill health.

William B. Birren, who resigned recently as director of service and parts of Wright Aeronautical Corporation, has accepted the position of assistant to the president of Grand Central Airport Company, Glendale, Calif.

ICAO Seeking Analyst

The International Civil Aviation Organization in Montreal has an opening in its air transport bureau for an economic analyst, a position paying $7,500 (Canadian) yearly plus a $720 cost of living allowance. Applications should be filed through the executive secretary, Air Coordinating Committee, Department of Commerce Building, Washington, D. C.

Airline Commentary

By ERIC BRAMLEY

ONCE in a while the airlines, like any other form of transportation, have an accident, resulting in big headlines. Automobile accidents get very little attention. But we heard some figures quoted the other day that make you stop and wonder. Do you know that next year someone is going to have the dubious distinction of becoming the *one millionth* motorist to be killed in an auto accident, and that someone else will become the 30,000,000th person to be injured in a car? Think about that one for a while. Then look at the airlines' record of fatalities per 100 million passenger-miles, and also consider that you can buy $5,000 worth of trip insurance for a quarter. If an insurance company will give you odds of 20,000 to one, it must consider that air transportation has some merit.

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We have been awaiting the 1950 airline calendars, to see who got theirs in the mail first. It's here now, and the medal goes to TWA. And a very nice job, too.

•

Spent two interesting days last month visiting the headquarters of the Delta family in Atlanta. We call it the Delta "family" because it has always seemed to us that this is one of the really closely-knit outfits in the business, and you really gotta go some to equal its morale. That's why it's always a pleasure to re-visit with old friends and to make new ones. Rode the American-Delta DC-6 interchange from New Orleans to Atlanta in the company of Marshall Kochman, Delta's director of properties, and had a nice chat with the crew—Capt. George Shealey and Co-pilot Charlie Green (son of Birmingham's Mayor Cooper Green). In Atlanta, it seems like we saw everyone from C. E. Woolman, president (who takes a personal interest in every employe), on down. Even sat in on a meeting (to which we contributed nothing) with John Sutton, passenger service superintendent, and chief stewardesses Libby Drum, Nancy Randolph and Emily McPoland. And incidentally, we ran across a beautiful example of economy. While wandering around the Delta offices we saw a room with a sign on the door which indicated that this was where the board of directors met. We stuck our head in the door and noted that there was a very nice carpet on the floor—but not a stick of furniture in the place. Upon inquiry, we were told: "Well, C. E. says that room is only used a couple of times a year, so why fill it up with a bunch of expensive furniture? When time comes for a directors' meeting, we'll borrow a table and some chairs from another office."

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A couple of issues ago we ran a picture, which has caused considerable comment, of a Capital Airlines' DC-4 with square windows painted on it so that it looked like a DC-6. Writes Richard Berne, of Milford, Neb.: "It is a mighty slick paint job. But I cannot believe that Mr. Carmichael really thinks he is fooling the public into believing Capital is operating DC-6's when those big black DC-4 de-icer boots can be spotted over a mile away." Seems like Mr. Berne knows more about about aviation than the average traveler, who probably will not realize that the DC-6 doesn't have de-icer boots. Everybody in this industry seems to kid everyone else, and the best crack we've heard about the picture came from the vice president of another airline (the kidding was good-natured) who dubbed the airplane the "poor man's DC-6" and added: "Why don't they go a step further and paint passengers in the windows?" We kidded Slim Carnichael about this, and he got a big kick out of it. His comment: "The idea may have merit—might confuse the enemy."

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There are some people in this business with long memories. A couple of weeks ago there was a story in the newspapers about the 11-year-old boy who smooth-talked his way on TWA all the way from New York to St. Louis without a ticket. The story quoted TWA as saying that it had carried "9,000,000 trans-country passengers in 20 years without a previous stowaway." Next morning our phone jangled and it was an old-timer who said he remembered a TWA stowaway way back, he thought, about 1933. He went further—said they found the fellow at Harrisburg, that the trip was Flight 3 (didn't have exact date), a tri-motored Ford, that the stowaway's name was Julius Stone, and that he thought the pilot was Joe Bartles (now TWA's western regional operations director). He said he thought we ought to ask TWA about this. Well, we figure that a guy with a memory like that deserves an answer, so we're asking. How about it, TWA?

Choose Radio

as you choose a pilot . . .

CHECK FLYING TIME

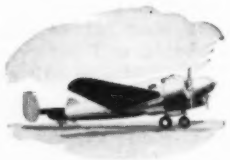
It's good to know, when your plane takes off, that the man up front has safely flown and landed in all kinds of weather over all types of terrain . . . that he has proven he can meet and master every kind of emergency . . . that the simple facts of his log book show that he is beyond question reliable, responsible and up-to-the minute in know-how and performance. *Without a single change, this description of a superlative pilot fits Bendix Radio equipment.*

Check that statement with *pilots* themselves. *They know,* because the chances are good that they have flown with Bendix Radio communication and navigation equipment every hour aloft—for *more planes and pilots fly more miles with Bendix Radio than any other make.* That's how easy it is to get the best in radio—just choose it as you choose a pilot, *look long and hard at the actual record,* and you'll buy Bendix every time.

Whatever the Plane or Purpose . . .

PERFORMANCE

Every major airline relies on Bendix Radio communication and navigation equipment—a preference based on sterling performance under every conceivable flight condition in all parts of the world.



FLEXIBILITY

Buying job-designed Bendix Radio allows you to choose for yourself, from a single reliable source, any type of installation, or any combination of equipment—because Bendix Radio builds a complete line of aviation radios.

ECONOMY

For the private flyer, Bendix Radio builds airline quality equipment at prices exactly proportioned to every job and every purse—from a small battery-operated receiver on up.

ADVANCED DESIGN

In the present defense program, Bendix Radio is engaged in helping to find answers to completely new problems. Bendix Radio builds equipment for America's newest Air Force planes.

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VHF Transmitters • H. F. Transmitters • Radio Control Panels • Antennas • Indicators
Automatic Radio Compasses • Marker Beacon Receivers • Announcing Systems
VHF Communication and Navigation Receivers • Inter-Communication Systems
H. F. Receivers • Radio-Magnetic Indicators • Ground Controlled Approach Landing Systems • Flightweight Personal Plane Radios • VHF Omni-Directional Range Systems

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THE AIRLINES of the United States are recognized as the most efficient in the world. Their standards of safety and service are high; their charges for that service are low.

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We believe that the system of private enterprise is best designed to keep the United States ahead in air transportation.

The record of performance, in our opinion, sustains that belief.

AMERICA'S LEADING AIRLINE **AMERICAN AIRLINES** INC.

20 Years on Dec. 3:

Aeronautical Radio Expanding Activities in Pacific Area

By William D. Perreault

With the completion of its new communications facilities in Los Angeles late in December, Aeronautical Radio, Inc., will have finalized its major program in the west coast-Honolulu area. This is the last of three important communication centers to be taken over by Arinc with the Seattle station already in operation and San Francisco due to be commissioned before Jan. 1.

At each of these key points, Arinc has engineered and installed improved radio stations which will enable the participating airlines to provide more efficient communications service at lower costs. The coordinated stations, providing air-ground communications for Northwest Airlines, United Air Lines and Pan American World Airways, are operated by Arinc personnel. In addition to serving overseas communications requirements, these Arinc stations will have their heaviest work load in the handling the domestic needs of Northwest and United.

Because the Pacific program of Arinc has enabled the airlines to replace radiotelegraph communications equipment with radiotelephone, it has attracted more attention than most Arinc projects. Actually, Arinc, which observes its 20th anniversary on Dec. 3rd, is one of the most active of service groups in the aviation industry. Its post-war program has formed the nucleous of almost all communications services used by U. S. airlines in foreign operations.

Growing Responsibility. Arinc is the major licensee of all civil aeronautical ground radio stations in the U. S., licensed to operate some 700 stations within the Federal Communication Commission's scope. As shown on the organization chart, Arinc contracts with individual airlines to operate most of its domestic stations. Its major role in this field is the coordination of civil requirements with existing facilities, contractural arrangements, monitoring of station operation to insure adequate standards, compliance with Federal legislation, etc.

As U. S. airline operations, scheduled and non-scheduled, have spread across the world with ever increasing frequency, Arinc's responsibilities have spread with them. While primarily a domestic operation, Arinc has been the model on which similar organizations were built in Cuba, Siam, Mexico, Britain, etc. In coordination with the military occupation forces, Arinc has even set up communications facilities in Tokyo and Okinawa.

1950 Projects. Rules governing radio station operation in most countries prohibit foreigners from engaging in such activities. In Tokyo, under existing military rule, Arinc is operating the radioteletype and telegraph facilities for point-to-point communications. During 1950 Arinc will set up facilities for radiotelephone air-ground communications at Tokyo.

Also scheduled for 1950 are project stations in Miami and San Juan. All activities of this nature are initiated at the request of member company airlines, who find a need for the facilities. Arinc does not initiate projects to enlarge its network. As the need for services grows, individual airlines sponsor the stations which are developed on a cost-sharing basis by the participating airlines. While PAA, NWA and UAL are now sharing costs of the west coast installations, all airlines are invited to use the facilities on a parallel basis.

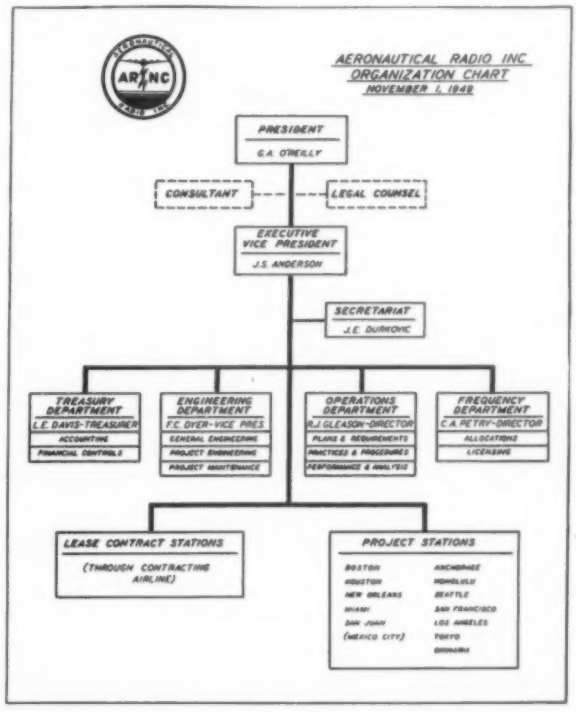
Pilot Installation. In the first months after the recent war, Arinc members sought a means of improving communications services in high-traffic areas by providing centralized operation of a single set of facilities. This would replace multiple stations at such points as Boston, where the problem was particularly acute because of the large number of operators involved.

Such a project station was established by Arinc at Boston in 1945, and the station serves the joint needs of all airlines operating into the city. As a pilot station, it provided valuable information which has since been used in establishing stations in Houston, New Orleans, Los Angeles, Seattle, San Francisco, Honolulu and Anchorage. While Boston is operated by one of the participating airlines under contract with Arinc, the remainder are Arinc-operated, as will be the future stations.

This experience in operating project stations, where a single Arinc group takes over the multiple facilities of several airlines, is expected to be very important in the next few years. At present, international governments are meeting in Geneva in an attempt to make world-wide frequency allocations. These meetings have been in session for over a year.

Project Stations. As a result of these frequency allocations, it is anticipated that Arinc will be expected to curtail the operation of part of its 700 high-frequency stations. In anticipation of this, a committee of airline communcations people, working with Arinc, has drawn up a program which would accomplish this end. As outlined, this program would drastically reduce the number of high-frequency stations while continuing a large number of VHF stations.

In order to accomplish this reduction in HF stations, it will probably be necessary for Arinc to establish a limited number of project stations, operated by Arinc, for the use of all airlines serving each area. When the time comes, Arinc will have the experience on which to base an intelligent, workable program.



The Organization. Arinc has come a long way since it was first envisioned by Louis G. Caldwell and later implemented by pioneer radio men such as Thorp Hiscock, Paul Goldsborough, Herbert Hoover, Jr., and Clayton C. Shangraw. In the process of this development, the staff has been kept at a minimum, with only 39 people now making up the entire administrative staff in Washington, where Arinc makes its headquarters.

This number includes everyone from

its capable president, G. A. O'Reilly, and executive vice president, J. S. Anderson, through the engineers, treasury officials and general clerical staff. In addition to this, the field groups are also kept to a minimum consistent with safe operations. One airline reports that it reduced communications personnel by 25 at a point where Arinc took over the job.

Arinc Secretary J. E. Durkovic combines secretarial duties, which involve many phases of continuing contractural agreements with the airlines, with certain engineering liaison, working with members of the various departments and attending communications conferences.

One of the most important of industry communications programs, the miniaturized and ruggedized tube development, comes under Vice President F. C. Dyer, head of the engineering department, whose group establishes airborne equipment specifications. R. J. Gleason, is director of the operations department; C. A. Petry, director of the frequency department and L. E. Davis, treasurer.

Personnel & Procedures. These four men head up the four major departments which are representative of Arinc's operating plan. Gleason's department is relatively new and implementation is not yet complete; however, the present staff includes Art Reagan, who handles plans and procedures, and H. B. Savage, who analyzes station performance and records the effectiveness of operations, an important function.

On the basis of operations department study and airline requests, Dyer's group takes over to implement the needs which are established and to maintain the facilities. Charles Banks, E. K. Morris and W. T. Carnes handle general engineering while Ed Fredrick handles project engineering. In Fredrick's department fall the practical aspects of building requirements, antenna number and placement. Project station maintenance is the function of Harold Waite and Roy Roble, also in Dyer's engineering group.

The frequency department, headed by Petry, has Walter Weaver in Geneva, representing the U. S. airlines and serving in an advisory capacity on the U. S. delegation concerned with frequency allocations. Howard Taylor handles the multiple problems of licensing associated with an operation of this size.

The financial arrangements of Arinc are very complex since they reflect wide variations in service to over 40 member groups. Some expenses are part of a general fund contributed to by all groups in relation to operating factors while others are shared only by airlines participating in a given operation, such as the west coast stations. This department is taken care of by Arinc Treasurer L. E. Davis, assisted by chief accountant Ed Sabatini and by Lee Youngs, Claude Hudson and Joe Terranovo.

Plane News

Clarence Belinn, president of **Los Angeles Airways**, has worked out a new modification which he'll try out on one of his **S-51's** both to increase load capacity and expedite mail. It adds a second rear compartment beneath the other rear pit.

The addition would look something like a built-in Lockheed Speedpak and would also act somewhat along the same lines as it would have six doors, three on each side, which would permit automatic ejection of mail bags. Scheme is for pilots to trip them on the fly over post office rooftops on schedules that are almost all delivery and practically no pickup because of the hour of the day.

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Two foreign airlines are reported to be negotiating with **Pan American Airways** for the purchase of some **Lockheed L-049 Constellations** for use on the Atlantic, but neither deal has yet been consummated.

The two companies are Aerolinee Italiane Internazionali (Alitalia) and El-Al Israel National Airlines Co. Ltd., the former negotiating for four planes, the latter for an undisclosed number.

Alitalia, which has not yet filed an Atlantic application with CAB, was said to be interested in buying new Constellations but could not get delivery in time to use them during Holy Year. El-Al Israel has an application on file with the Board.

•

Aerovias Nacionales de Colombia (Avianca) has acquired two of American Airlines' surplus **DC-4's** and will have them modified in this country for use in fulfillment of a contract with the Colombian National Holy Year Committee for the transportation of 1,000 pilgrims to Rome next year. The European operation will originate at Avianca's main base at Barranquilla and will proceed to Rome via Bermuda, the Azores and Lisbon.

Tentative plan is for operation on a once-weekly frequency commencing in mid-March, with extra sections to be operated if required. Capt. George Cauthen has been designated as assistant chief pilot with responsibility for laying out the European operation.

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Pan American Airways has retired the last of its **DC-3's** used in the Caribbean area since 1942. The twin-engined ships have been replaced by **Convair Liners**. Of 44 DC-3's in service on PAA's Latin American routes in 1945, only nine are now left, these being operated on routes in Central America and in Colombia where the size of certain airports precludes the use of anything heavier than a DC-3.

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The Smithsonian Institution has accepted the **Beech Bonanza** "Waikiki Beech," the plane in which the late Bill Odom flew non-stop from Honolulu to Teterboro, N. J., for a new light plane distance record. The plane will be kept at the **National Air Museum's** storage facility at O'Hare International Airport, Chicago.

•

Western Air Lines has developed a self-contained **passenger loading stairway** which is operated hydraulically for its DC-3 equipment and the first plane so equipped is now operating on the Inland division. Designed and installed by WAL's maintenance and engineering department, the door-step frame is of tubular steel construction with aluminum risers and sides and magnesium step treads.

Antenna Department—This photo of United Air Lines' newly-constructed control tower at Reno, Nev., gives some indication of the growing field of communications and electronic instrumentation. The tower was constructed by UAL and is equipped and operated by CAA. The straight poles are VHF receiving antennae and the "spider web" type units are for VHF transmitters. Other equipment includes obstruction lights, anemometers, beacon light and signal light gun (inside tower) shown in operation.

Wingtip Compartment Cuts Isotope Shipping Costs

Transport of radioactive isotopes in the wing tips of Douglas DC-4 aircraft is now being programed by South African Airways with the promise of sharply reducing the ultimate cost to the purchaser. Under normal conditions it is necessary to carry the isotopes in heavy lead casting to protect the aircraft personnel against radiation, with the result that shipping charges are high and handling is difficult.

The new method of transporting the isotopes was developed by Dr. E. C. Halliday, principal research officer at the National Physical Laboratories of the Council of Scientific and Industrial Research, Pretoria, in collaboration with South African Airways and the Division of Civil Aviation of the Dept. of Transport.

The isotopes are enclosed in small metal containers, fitted with rings into which metal rods are hooked so that personnel handling the isotopes need not touch them by hand. Tests have been conducted during the past few months to ensure that the rays from isotopes carried in this manner would not affect passengers, crew, sensitive photographic plates carried as freight, etc.

Prior to inaugurating this type handling in regular service, it will be necessary for SAA to obtain permission of all countries along the London-Johannesburg Springbok route but this is expected within the next month. Commonwealth Research Organization of Australia is interested in the program.

AF Develops Rescue Suit

An important step toward improved rescue procedures following crash fires has been developed by the USAF Engineering Division at Wright-Patterson Air Force Base, Ohio. A specially-developed suit recently tested there makes it possible for the wearer to remain in a fire at temperatures of 2,000 degrees Farenheit for as long as ten minutes.

The new suit is made of 18 layers of Fiberglas materials, is one-half inch thick and weighs approximately 29 pounds. Made up of layers of glass fiber, glass fiber batt, glass fiber net, neoprene-coated glass fiber, honeycombed cotton cloth, silver foil, aluminum foil and nylon, the fire suit is not affected by water, oil, common solvents, fuels, lubricants, fire-fighting agents or abrupt changes in temperature.

The suit consists of a one-piece coverall, a hood, mitten-type gauntlets, and asbestos-soled boots, all of the 18-layer material. The mittens are slightly lighter weight than the rest of the suit, providing improved gripping qualities for the hands, which have an inherent ability to stand relatively higher temperatures.

A bottle of compressed air is carried inside the suit to provide breathing air.

Among the Suppliers

Jack & Heintz Precision Industries, Inc., Cleveland, O., reports that their backlog of aviation business now exceeds $6,000,000. . . . **Vincent Ellis** has joined the Eastern division of **Lear, Inc.**, as sales engineering representative. Ellis will handle sales activities for Lear in the Washington, D. C. area.

Fuller

Bendix Aviation Corp., North Hollywood, Calif., has named **R. C. Fuller** general manager of the Pacific Division. Fuller has been with the sales department of Bendix for nine years and has been sales manager since 1943.

Pacific Airmotive Corp., Burbank, Calif., reflecting its improved financial position, made a payment on a bank loan several months early. PAC has completed negotiations with Lockheed Air Terminal for a five-year lease on the facilities now used by PAC's aircraft division in Burbank . . . **Federal Telephone and Radio Corp.**, Newark, N. J., has appointed **Frank B. Powers** as director of manufacturing operations.

Frederick H. Lee, Jr., formerly sales manager of the Aviation Chemical Division of the **R. M. Hollingshead Corp.**, Camden, N. J., has been named head of the company's newly combined Industrial Chemical Division including the ACD.

SKF Industries has announced the appointment of **Emerson D. Ogle** as manager of the industrial sales department . . . **General Controls Co.**, making automatic pressure, temperature and flow controls, has opened a new office at 307 E. 4th St., Cincinnati to service southern Ohio, southeastern Indiana and central Kentucky.

Accessory Overhaul Industries, Richmond Hill, Long Island, has appointed **Robert Demarest** as vice president.

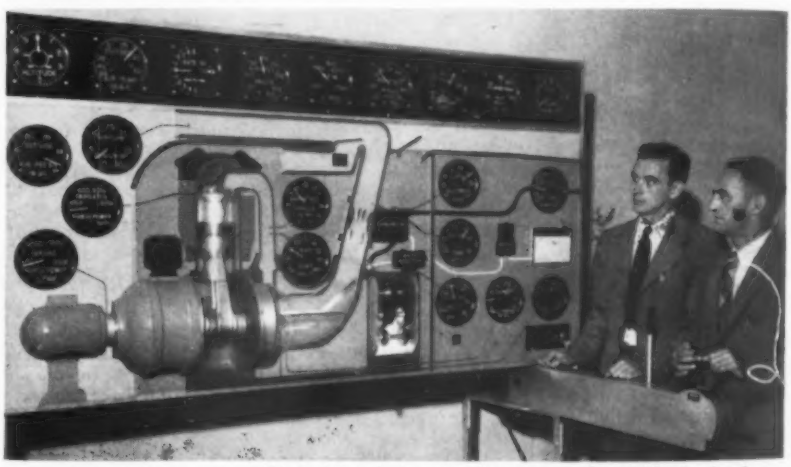
Air Associates will soon be distributing their new merchandise catalog. The 224 page catalog is cross indexed and features an AN-AC index.

Michael J. Phillips has been appointed general manager of the newly formed Industrial Division of **Greer Hydraulics**, Brooklyn, N. Y. Phillips will supervise the production and marketing of Greer hydro-pneumatic accumulators and other hydraulic components.

Purolator Products, Newark, N. J., has elected **Jules P. Kovacs**, formerly chief engineer, to the position of vice-president in charge of engineering . . . **Charles E. McCuan**, formerly mid-continent branch manager, with **Saval, Inc.**, has been transferred to the Los Angeles where he will become sales manager for all Saval aircraft products.

Tinnerman Products, Cleveland manufacturer of Speed nuts, clips and clamps, has established a Western New York sales division with headquarters in the Cutler Building in downtown Rochester. **Chris Ringhaver**, formerly in Tinnerman's Cincinnati office has been named sales manager for the new district . . . **Thomas M. Belshe** has been appointed vice president of **Lear, Inc.** Since retiring from the USAF early this year, Belshe has been a member of the board of directors and Lear's Washington representative.

Recent personnel changes announced by **Pacific Airmotive Corp.** include: **Bruce H. Atwater** to take over management of PAC's Eastern Division; **Ford Palmer** appointed Director of Military sales; **Cecil O. Bryant** appointed manager of the Anchorage Division in Alaska; **Raymond E. Vail**, appointed acting division manager of the Oakland Division.



Simulated Power— This training device provides crew members with visual reference to all critical factors in operation of reciprocating engines. It was designed by P&W engineer John B. Cutting to duplicate conditions existing in the R-2800 engine. Through the use of balance circuits, servo mechanisms, etc., the Newton Trainer provides factual reproduction of spark occurrence, mixture effects, effects of water injection, detonation, supercharger shifting, etc. In this photo, G. Robert Telle, left, development engineer of the trainer, watches John Cutting put the device through its paces.

Extra Section

By William D. Perreault

GEORGE LEWIS must believe in his own writings. His paper on "Some Natural Limitations on Space Travel" was such a fine presentation that he is being awarded the American Society of Mechanical Engineers' award for the top technical paper of 1949. But George expects to drive his "square fendered 1935 Chevy that gets fidgety doing over fifty" to make his trip to New York for the award. It seems that George has never been up in an airplane.

•

Considerable interest has been shown in the disposable oxygen mask mentioned in a previous issue. Following communication with the manufacturer of this device, one airline indicates that it has been informed that the mask is not commercially available at this time. The mask is being handled for the military services. If we've stimulated your interest prematurely, we're sorry. The response certainly proves that the man with the better mousetrap still draws the audience.

•

We looked over the Hollingshead Corp.'s factory in Camden last week and talked with Fred Lee, head of company's Industrial Chemical Division. Guess everyone knows Hollingshead manufactures cleaners, polishes, special oils and other products including a new and promising non-inflammable hydraulic fluid. Our interest was attracted by one of their hundreds of non-aviation items. They provide large quantities of wax used by the citrus fruit growers in Miami to "lock in" the flavor and juice during shipping and storage. Same deal applies to cucumbers also. It's news to us.

•

In a letter to the Airline Medical Directors Association, Dr. Ludwig G. Lederer, medical director of Capital Airlines and president of the Association, reported that Capital's two and one-half year study of motion sickness showed only 0.89% of 1,120,977 apparently well passengers suffered discomfort due to motion sickness. Dramamine, the new motion sickness drug, immediately relieved the one passenger in one hundred affected by motion sickness in 75% of the instances. As a preventative, dramamine was reported effective in 90% of the cases.

•

Bob Rowley of All American Airways dropped us an interesting note about their maintenance set-up which they feel is a "first" in its field. To keep maintenance supervisors aware of the operations problems involved in the feeder airline operation, El Cheyno, superintendent of maintenance, has established a policy requiring all maintenance supervisors to ride the "jump seat" over AAA's routes once a month. This ruling takes in nine of AAA's maintenance organization, enough to insure that the lessons learned will be passed on through the department.

•

With all this talk about commercial jets in the near future, maybe you, too, are beginning to wonder about some phase of the new era. If so, the National Bureau of Standard's new circular 482 will be of interest and value to you. It's a 49-page "Bibliography of Books and Published Reports on Gas Turbines, Jet Propulsion and Rocket Power Plants." A bargain at 20c per copy from the Supt. of Documents, U. S. Government Printing Office, Washington 25, D. C.

•

The Navy has developed an automatic bug spray which makes it possible to disinfect the entire airplane by simply pushing a button in the pilots' compartment. This releases the proper quarantine dosage of freon-propelled insecticide in the cabin, cargo compartments and in all other areas provided for in the original design. Airplanes flying from places such as Hawaii and Puerto Rico are required to have this type of quarantine by the U. S. Public Health Service and the Dept. of Agriculture.

TECHNICAL LITERATURE

Soil Mechanics: The Engineering Experiment Station of the University of Illinois, Urbana, Ill., has published two booklets of interest to those associated with soil mechanics. They are: "First Progress Report of a Laboratory Investigation of Roadbed Stabilization," reprint series No. 42 and "Contributions to Proceedings of the Second International Conference on Soil Mechanics and Foundation Engineering," circular series 55. Reprint 42 sells for 10c and circular series 55 for 35c.

Franklin Institute: The Franklin Institute of the State of Pennsylvania, is distributing a 40-page, illustrated brochure describing the research and development laboratories which are staffed by some 300 specialists. The list of fields in which the Franklin Institute operates stretches from solid physics to simulators, magnetic recordings to magnetic clutches, radiation to publishing. Copies may be obtained from Administration Div., The Franklin Institute Laboratories for Research and Development, Benjamin Franklin Parkway at 20th St., Philadelphia, Pa.

Code Markers: Western Lithograph Co., 600 East Second St., Los Angeles 54, Calif., has printed a 12-page booklet describing E-Z Code Markets. The booklet describes self-adhesive E-Z Code markers which can be used for identification of wires in diameters of 0.20 inch to 1.25 inches.

Aviation Lamps: Westinghouse Lamp Division, Bloomfield, N. J., is circulating an eight-page booklet titled "Westinghouse Lamps for Airways, Aircraft and Aerodromes." Data on every available type of aviation lamp is provided in tabular form and a descriptive page is included that illustrates the various filament, base and bulb designations.

Conduit Labels: W. H. Brady Co., Dept. 14, 815 N. Third St., Milwaukee 3, Wis., has available a new bulletin in three colors describing the self-adhesive Quik-Label pipe and conduit markers conforming with ASA standard no. A13, "Identification of Piping Systems."

Air Cylinders: The Bellows Co., 222 W. Market St., Akron, Ohio, has released a bulletin describing their Power Dome non-rotating, double-acting air cylinders. Describes types of mounts, sizes and provides dimensional drawings.

Tube Tests: The National Bureau of Standards has published technical report 1366 titled "Rugged Electron Tube Development." The report deals with the program which the NBS is using in the testing of electron tubes to determine the type of failures that occur under severe mechanical abuse. Included in the report are mechanical vibration tests, mechanical resonance tests, high-impact shock tests and centrifugal acceleration tests. Copies available from NBS, Technical Reports Section, Washington 25, D. C.

Crash Fires: The Office of Technical Services of the U. S. Dept. of Commerce has released a 106 page manual covering "U. S. Navy Airplane Crash Fire Fighting," bulletin PB 97925. Originally prepared as a training film, the material covers the chemistry of fire, extinguishing agents, crew rescue procedures, fire fighting equipment and practices, etc. The widely illustrated manual sells for $2.75 per copy sent by check or money order payable to the Treasurer of the U. S. Address orders to Office of Technical Services, Dept. of Commerce, Washington 25, D. C.

Power Units: International Diesel Electric Co., 13-02 44th Ave., Long Island City, N. Y., is circulating a four-page bulletin describing their complete line of packaged power units in the form of diesel and gasoline engine-driven generator sets designed for emergency or continuous service.

Bendix Products Division

FIRST IN FUEL METERING

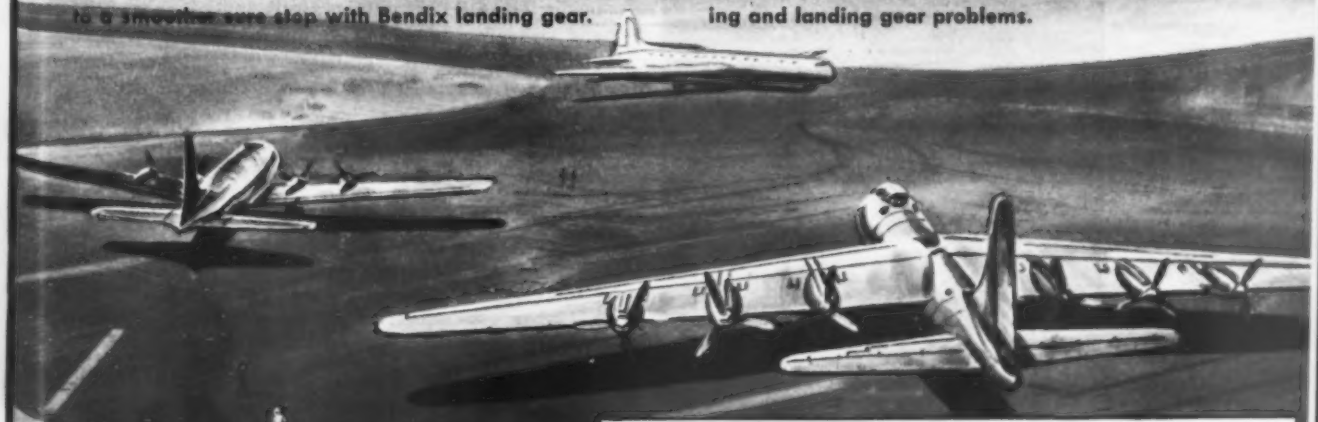
From the Fastest to the Largest!

The outstanding ability of Bendix Products in keeping pace with aviation progress is graphically demonstrated in the scope of its accomplishments.

Bendix fuel metering systems on the latest and fastest jets, for example, are meeting conditions undreamed of a few years ago. Today the world's largest land plane is brought to a smoother sure stop with Bendix landing gear.

The fact that the experience and skill of Bendix Products are constantly utilized in record breaking achievements is ample evidence of its capacity to serve the practical needs of engine builders and airplane manufacturers.

Why not let this combination of engineering experience and manufacturing know-how help solve your fuel metering and landing gear problems.

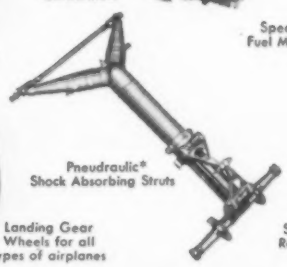


LEADER IN LANDING GEAR

Fuel Metering Unit for jet engines

Stromberg* Injection Carburetors

Speed-Density Fuel Metering Unit



Pneudraulic* Shock Absorbing Struts

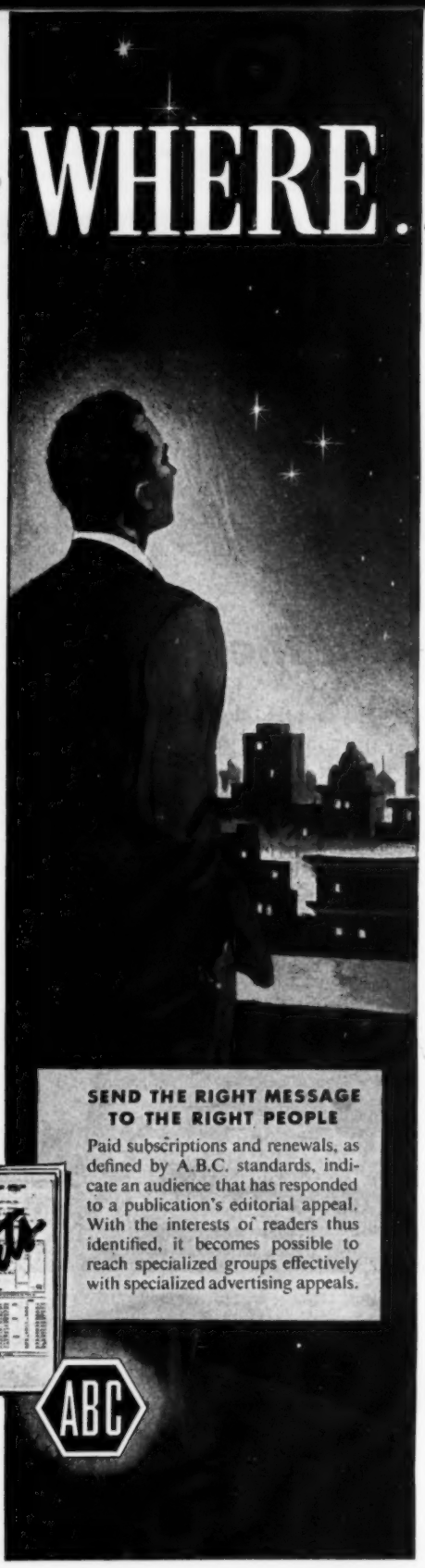
Landing Gear Wheels for all types of airplanes

Segmented Rotor Brakes

*REG. U. S. PAT. OFF.

BENDIX PRODUCTS DIVISION of
SOUTH BEND 20, INDIANA
BENDIX AVIATION CORPORATION

Export Office: Bendix International Division, 72 Fifth Ave., New York 11, N. Y.


SEND THE RIGHT MESSAGE
TO THE RIGHT PEOPLE
Paid subscriptions and renewals, as defined by A.B.C. standards, indicate an audience that has responded to a publication's editorial appeal. With the interests of readers thus identified, it becomes possible to reach specialized groups effectively with specialized advertising appeals.
A B C
Reports
ABC

Oh! WHERE *... is my wandering ad tonight?*

THERE are two ways to buy advertising space. One is the guesswork-opinion method. The caption above is the mournful song of an advertiser who is still selecting media the way it was done before World War I, when there were no standards for the circulations of published media and when there was no accepted and approved method of auditing circulations. In those days, advertisers O.K.'d their proofs and sent out their advertising with a prayer that some of their sales messages would find their way to market.

The other way to buy space is the factual, know-what-you-get-for-your-money method. Today advertisers can start their investments on a basis of facts by selecting media with the help of the information in the reports issued by the AUDIT BUREAU OF CIRCULATIONS. This cooperative and nonprofit association of 3300 advertisers, advertising agencies and publishers, organized in 1914, has established standards that make it possible to evaluate the circulations of published media. The A.B.C. maintains a large staff of experienced and specially trained circulation auditors who make annual audits of the circulations of publisher members. A.B.C. reports give the facts thus obtained.

Here are some of the audited facts about business papers that A.B.C. reports tell the advertiser:

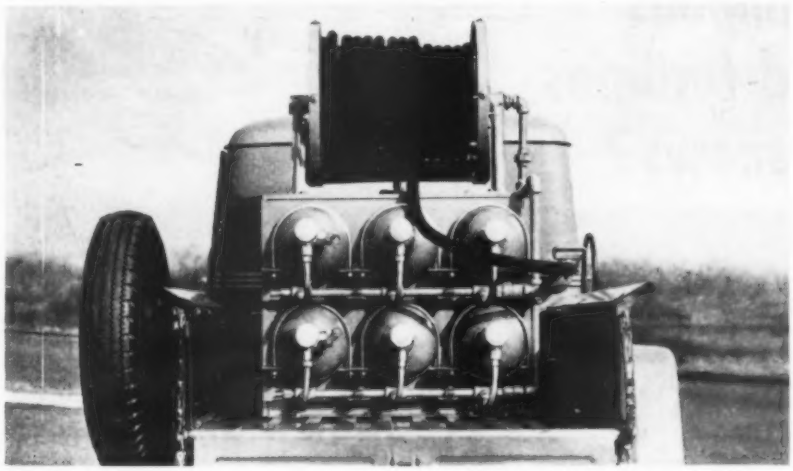
—how much paid circulation;
—how much unpaid;
—an occupational or business breakdown of subscribers;
—where they are located;
—how much subscribers pay;
—whether or not premiums are used;
—how many subscribers are in arrears;
—what percentage of subscriptions are renewed.

Those who buy advertising on the basis of this factual information, as given in A.B.C. reports, do not have to speculate about the distribution of their sales messages. They KNOW where and to whom their advertising goes. That is why this business paper is a member of the AUDIT BUREAU OF CIRCULATIONS. Ask for a copy of our A.B.C. report and then study it.

AMERICAN AVIATION
1025 Vermont Ave., N.W.
WASHINGTON 5, D. C.

A. B. C. REPORTS—FACTS AS THE BASIC MEASURE OF ADVERTISING VALUE

NEW PRODUCTS

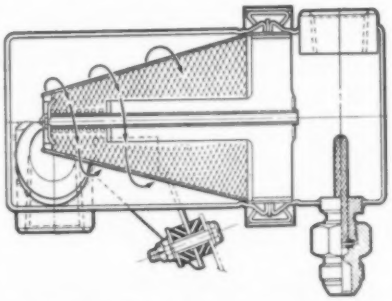


Hose and Reel

Walter Kidde & Co., Inc., 675 Main St., Belleville 9, N. J., has developed a compact carbon dioxide cylinder and hose reel unit for mounting on 1-ton truck bodies for mobile fire protection at airports, etc. A typical installation on a Willys Jeep is shown. The unit uses six 75-pound cylinders of CO-2 arranged to discharge in two groups of three each through high-pressure flexible hose and a multijet nozzle. Any reasonable length of hose may be carried and the reel is equipped with a brake to control uncoiling.

Oil Separator

Genisco, 2233 Federal Ave., Los Angeles 25, Calif., has designed a new type oil separator for use in aircraft instrument vacuum exhaust systems. The assembly, which exceeds AN 6161 requirements for oil recovery and pressure drop, can be easily disassembled for cleaning. Other features include a relief valve, finger screen oil outlet, and a mounting bracket suitable for use in a variety of mounting arrangements. Available with ½" and ¾" pipe thread ports with oil recovery of 83-84% with 20 cfm free air flow and 144 cc oil to the pump. Total weight is 2 lbs. 7 ounces. Unit bears CAA approval.

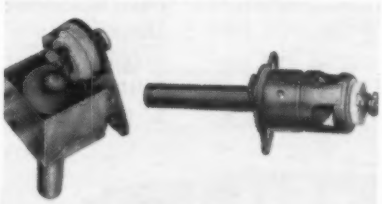


Pressure Washer

D&M Products, Inc., 439 Western Ave., Los Angeles 5, Calif., has designed an improved model of the Hydro-Air pressure washer used in industrial cleaning applications. This improvement has been accomplished through redesign of the air orifice and venturi tubes permitting the utilization of an increased volume of air and water. A wide range of adjustment permits the D & M pressure washer to be adapted to all types of cleaning.

Fire Detector

Control Products, Inc., 206 Sussex St., Harrison, N. J., is marketing a fire detector provided with hermetic sealing by means of an outer can and glass terminal seal. Approved under CAA TSO C-11, SAE specification 401 and U. S. Navy specifications SR-154A, the CPI detector, is claimed to be free from the effects of typical vibrations encountered in aircraft installations.



Inquiries about equipment on this page may be sent either to AMERICAN AVIATION or direct to the manufacturer.

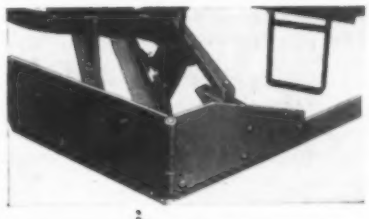
Readers looking for sources of special equipment are invited to write to AMERICAN AVIATION's equipment editor. Every effort will be made to provide information on manufacturers and suppliers who are in a position to furnish or develop needed airborne or ground equipment.

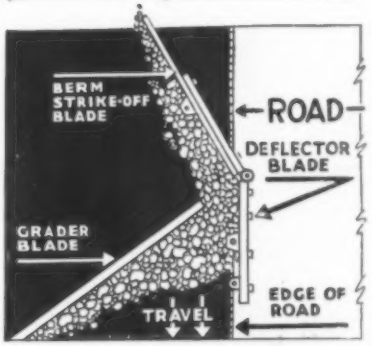
Spray-Gun Kit

Sellco Corp., Dept. Z-8, 801 Andrus Bldg., Minneapolis 2, Minn., is marketing a complete, easy-to-carry spray-gun kit weighing less than 17 lbs. The Paysswell Spray-pak is self contained with compressor, motor and gun in one unit. Sprays one quart of paint or other liquid in 4 minutes at 50 lbs. air pressure. Power can be supplied by any 110 volt AC or DC outlet. Spray gun is equipped with trigger action for one-hand operation. The complete Spray-pak with gun and accessories is $79.95 or the spray-gun alone is $59.95.

Motor Grader

The Galion Iron Works & Mfg. Co., Galion, Ohio, has introduced the No. 303 Motor Grader for rugged, medium-duty grading operations at low cost. It is supplied with either diesel or gasoline engines of 45 hp at 1600 rpm. Choice is also available of all-gear, four-wheel tandem drive or single drive. Eight overlapping forward and two reverse speeds insure optimum performance. Manual or hydraulic booster steering is supplied. With tandem drive, weights (without scarifier) are from 13,145 lbs. or, with single drive, from 11,400 lbs. depending on extra equipment. All operations of the blade, scarifier, and leaning front wheels are completely hydraulic. Blade is adjustable 360 degrees horizontally for operation in reverse and 90 degrees vertically for bank cutting. Electric starter is standard equipment.



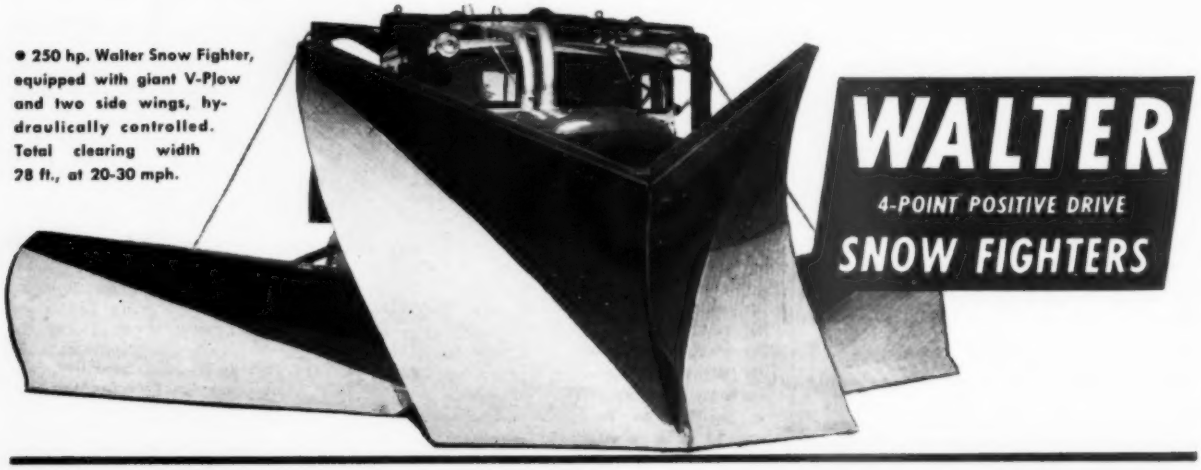


Why tie up Millions in equipment and facilities every time it snows?

HUGE investments have been made in modern planes. instruments and ground controls to provide safe winter flying. But they are wasted if planes have no place to land during storms—if planes remain grounded by delays in clearing runways, strips, aprons and approach roads.

Stop the crippling, costly effects of snow, sleet and ice by equipping with big, fast, powerful Walter Snow Fighters . . . specially designed for high-speed, high-capacity snow removal and ice control. Keep main runways open for emergency operation in severest storms. Have all runways and areas safe and usable within very few hours after the storm ends.

Walter Snow Fighters are the only equipment with Four-Point Positive Drive to assure 100% traction on snow and ice. Specially designed plows, wings, scrapers, sand and chemical spreaders available to meet every winter hazard. Learn why Walter Snow Fighters are key equipment at the largest air terminals in the snow belt. Have our airport specialist call—or write for detailed literature. Walter Motor Truck Co., 1001-19 Irving Ave., Ridgewood 27, Queens, L. I., N. Y.



• 250 hp. Walter Snow Fighter, equipped with giant V-Plow and two side wings, hydraulically controlled. Total clearing width 28 ft., at 20-30 mph.

$10 Million Project:

SF Voters Approve Bond Issue to Complete Airport

By KEITH SAUNDERS

Much-needed improvements at San Francisco International Airport, held up for two years for lack of funds, got a green light from the city's voters in last month's election.

Requiring a two-thirds majority to carry, the $10,000,000 Airport Completion Bond Issue was approved by more than 73% of those voting.

It was a victory for aviation-minded San Franciscans who a year before had witnessed the defeat of an $8,600,000 airport bond issue that had to yield top billing on the ballot to a $48,000,000 school bond issue.

The City Public Utilities Commission, which has control of airports, proposes to spend the new $10,000,000 over a period of four years for the following improvements:

New terminal building and concourse	$4,500,000
Apron and servicing facilities in the terminal area	4,297,000
Reclamation, roads, utilities and structures for private aircraft	700,000
Completion of water supply	130,000
Rehabilitating existing terminal	110,000
All-weather flying aids	110,000
Miscellaneous	153,000

When the war ended, San Francisco adopted expansion of the airport as its first major postwar public improvement. The voters approved the issuance of bonds in the amount of $20,000,000, which at the time was deemed ample for the job.

Costs Rise. Work was begun in early 1946, starting with an earth-fill job that required some 15,500,000 cubic yards of dirt to be hauled from a mountain and dumped into the bay at the edge of the field. Within 18 months, however, it became apparent that the original $20 million would not be enough to complete the job. Like every other postwar construction job, the project was affected by rising costs. So in 1948 the citizens were asked to approve another airport bond issue but, as mentioned previously, it failed to carry.

Thereafter, work was continued with funds still available on the basic ground facilities of the field such as runways, drainage, conduits, taxiways, etc. Still needing money for a modern terminal building and navigational and landing aids, the $10,000,000 airport bond issue—aptly labeled the Airport Completion Issue—was placed on the ballot by unanimous vote of the Board of Supervisors. This time it carried.

The passenger terminal and administration building, designed by William P. Day, will incorporate innovations and proved ideas that will make it one of the most modern as well as most functional in the world.

Traffic Flow. Traffic separation will be a key feature of the terminal. The stream of embarking and disembarking will be separated vertically by having outbound passengers come into the terminal to board flights on one level, while inbound passengers will utilize another level of the terminal. There will be convenient places where a passenger can change his direction without inconvenience.

This separation of passengers will also permit ready handling of international traffic, especially for customs inspections. The new building will permit the consolidation of international and domestic traffic presently handled in different terminals in different areas of the field.

One of the most interesting innovations planned for the new building is a system of sliding gangplanks which will lead directly from the concourse to the door of the aircraft, permitting passengers to embark or disembark without touching the ramp on which the airplane is parked. This is subject to further study and the availability of funds.

Easy Expansion. Initially, the new building will have 25 loading gates, but this number can be increased later if necessary. The structure itself will be capable of great expansion without dis-

PLANS for construction of an administration building and passenger terminal for San Francisco International Airport, dormant for the past several years because of lack of funds, are now being pushed as a result of passage of the city's $10,000,000 airport bond issue last month. Terminal and concourse (architect's drawing above) will cost about $4,500,000 and should be in use by 1953. It will contain 200,000 square feet of floor space and will be one of the world's most modern terminals.

turbing the surrounding area. This will be possible because the plan of the building provides for pillars and floor slabs, with few bearing walls.

Thus, all of the lobby level need not be used initially for public purposes, but can be used for other functions by the erection of partitions. Later, if necessary, these partitions can be removed and additional area made available for public use. In addition, it will be possible to extend and add stories to the two wings of the building. The plan is so elastic that the initial floor area of some 200,000 square feet could be doubled if required.

When the present expansion program is completed, the physical properties of the San Francisco International Airport will include these major facilities:

1. A set of dual runways, with the longest stretching 9,050 feet, qualifying the airport for "international express" rating by CAA. The other three will be 7,750 feet, 7,000 feet and 6,500 feet, all 200 feet wide.
2. A basic field of 1,880 acres, with airport ownership of 3,722 acres making special zoning adjacent to the airport unnecessary.
3. A modern and efficient administration building and passenger terminal, with space for all types of public service businesses.
4. A new air mail and air cargo building.
5. Central power plant and terminal area maintenance building.
6. A private aircraft area with modern hangar and service facilities.

In addition, the present administration building will be used as a private flyer clubhouse and office building.

Revenue Forecast. The airport has prepared a financial prospectus that show how the expenditure of the recently-passed $10,000,000 bond funds is expected to result in greater revenue. Over a 20-year period, from 1953 to 1972, it is estimated the revenues will exceed operating expenses by $10,720,529 not including taxes, bond interest and redemption. Thus, it is considered quite likely that the increased revenues will at least pay off the principal of the recent bond issue.

Furthermore, the Public Utility Commission emphasizes that if it were impossible to build the revenue-producing administration building, the airport would doubtless go into the red by $5,776,500 over and above operating costs for the same 20-year period.

B. M. "Mike" Doolin, manager of the airport has said, "I personally think that the San Francisco International Airport has sought its last general obligation bond issue. I don't mean it will not have to expand ever again. It certainly will. But I believe that, from now on, the airport will have the facilities to make enough money to support revenue bonds. Aviation is becoming more predictable. It's becoming more businesslike. I believe it will have to and it will pay its way. And I'm convinced that it most certainly will have to pay its own way in future development of the San Francisco Airport."

New Law Lifts Restrictions On Surplus Building Use

With the passage and signing into law in October of Public Law No. 311 (AMERICAN AVIATION, October 15) the Civil Aeronautics Administration was given sole responsibility for determining and enforcing terms under which surplus buildings on former military airports may be transferred for non-aviation uses, and former restrictions against the leasing of such buildings for industrial use were lifted.

What this will mean to communities having such properties on their airports cannot be estimated in concrete terms, but in the opinion of Frank J. Cummings, who has been detailed to handle the new program for the CAA, it will doubtless be a "lifesaver" to a good many small towns which have found the cost of maintaining a large erstwhile military airfield quite burdensome.

"A lot depends on the condition of the buildings on a given airport, the location of the airport, and other factors," said Cummings, "but the operators of most of these airports now have a real opportunity to hustle for small industries that will want this bargain-rate space."

Cummings said he did not know what the average lease figure for the surplus buildings might be, but he gave it as his opinion that they would range from a low of 10 or 15c per square foot per year to a high of 75c or better.

The communities owning such buildings can well afford to rent them at such figures, he pointed out, since the buildings were given to them in the first place and little if any money has been spent on them.

At the insistance of the War Assets Administration, which then still had on its hands large numbers of industrial properties of which it was anxious to dispose, the Surplus Property Act was amended in July 1947, so as to provide that no structures turned over to public agencies for airport revenue-producing purposes could be used as an industrial plant, factory or similar facility unless the public agency paid to the government a "fair consideration" for removal of the restriction.

This pretty well tied the hands of communities owning such buildings on their airports, because it narrowed the field of potential lessees to the relatively few people who would want offices or space for retail or service establishments. On the other hand, there were many small manufacturing and processing plants, stymied by high construction costs and high rentals or lack of adequate space in downtown locations, that were looking around for suburban property they could lease at a reasonable figure. They can now be solicited as airport tenants for the first time.

The result will be, in many cases, a brand-new industry for the community and a new payroll, plus additional revenues to help meet airport operating and maintenance costs.

Affected by the new amendment are 525 airports embracing more than 500,000 acres of land for which the government during the war years paid $1,277,866,000 in acquisition costs, plus substantial leasing costs. Also involved are improvements, including buildings, which cost another $16,466,000. Most of these buildings were of temporary frame construction, most of them had minimum maintenance during the war years and have had virtually none since, and some are now worth nothing except for scrap lumber. But a majority are or can be made usable without much expenditure.

Under the new law, the CAA may grant permission to a community to tear down or dismantle surplus buildings which no longer are in rentable condition, or where the land they occupy can be more profitably used otherwise. Any money realized from salvaging the materials in such buildings must be used for airport improvements.

The bill gives to CAA the sole responsibility for determining and enforcing compliance. CAA has had this authority with respect to all transfers since July, 1947, but War Assets Administration has had it with respect to buildings on 260 airports that were declared surplus and transferred to communities before that time.

Because many contracts now in existence between public agencies and their airport tenants embody restrictions against industrial use, the Administrator will have to issue a "corrective, reformative or amendatory instrument" where necessary.

A memorandum setting forth the provisions of the new legislation was sent out recently to all regional administrators of CAA, together with a briefing as to procedural steps to be followed. The administrators, in turn, will hold conferences with owners of surplus airports in their respective regions and advise them of their rights.

The program should move into high gear within a few weeks, and by the end of the year, particularly in southern states, Texas and California, where the majority of the 525 surplus airports are located, hundreds of now tenantless buildings will be serving a useful purpose and bring in substantial revenues.

AOC Meeting Papers: Bound copies of the papers presented and a selective discussion record of the second annual meeting of the Airport Operators Council, held in Denver last May 2-4, are now available at $2.50 per copy from the AOC's headquarters, Suite 503, Commonwealth Building, Washington 6, D. C.

The Birdmen's Perch

IT'S COMING! THE GULF NATIONAL AEROBATIC CONTEST!

A highlight of the forthcoming Miami All-American Air Maneuvers will be the Gulf-National Aerobatic Contest, sponsored by your favorite oil company.

NOW—a little about the contest

It's open to all—both men and women on an even basis. The plane can be of any make—with any power plant. Complete details and entry blanks can be obtained from the Miami All-American Air Maneuvers, Inc., Room 415 Professional Building, Miami, Florida.

Qualifying trials will be held January 10th to the 12th. Then, during the Maneuvers (January 13-15), those who have qualified will compete with one another for the title and the prizes.

About those prizes—there will be trophies and $3500.00. The money will be divided as follows: $1750 to the first-place winner, $875 to the second-place winner, $525 for third, and $350 for fourth.

Sound interesting? Well, start practicing. But before you do, better get all the "info" and an official entry blank. Don't write us. *Do* write All-American Air Maneuvers, Inc., Room 415 Professional Building, Miami.

Best of luck.

SPONSOR PLUG

'Course you already know that Gulfpride —Series D—is the world's finest detergent dispersant oil for horizontally opposed engines. And that Gulfpride Aviation Oil—Series D—is the only aviation oil put through Gulf's exclusive Alchlor process . . . the process that removes extra carbon and sludge formers.

It's things like this, you know, that keep valves and rings free longer. Yep!

And time between overhaul periods can sometimes be extended as much as 100%!

That's 100% of what on *your* putt-putt?

LITTLE KNOWN FACTS DEPT.

It's inconceivable to think that anybody would pass up the supreme opportunity of becoming a Perch Pilot. Yet, we continue to get LKF's—some of them mighty tempting—*that are not accompanied by proof!*

Naturally, we can't print them, and it dampens our eyes to imagine the suicidal frustrations and horrible torment the senders of facts-without-proof are going

through, when, month after month, their facts don't appear on this page.

Avoid this agony and despair. Enclose PROOF with your fact just as David A. Taylor of Houston, Tex., and Francis Babyak of Chicago, Ill. did. Their fact:

"*Due to the pre-rotation of the tires on the Lockheed Constitution, the landing is so smooth that the pilot needs a special signal light in the cabin to tell him when he's touched ground!*"

Taylor and Babyak are in line for exalted commissions as Perch Pilots (br). You can help yourself to the same if you grind out an acceptable LKFAWKP, enclose proof, and slip it to

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PITTSBURGH 30, PA.

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GULF AVIATION PRODUCTS

WHEN YOU INSPECT YOUR PLANE DON'T EXPECT TO REMEMBER EVERY ITEM.
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HAVE YOUR CHECKOFF SHEET HANDY AND REFER TO IT··· OR ELSE YOU MAY FORGET
SOMETHING IMPORTANT··· LIKE FORGETTING TO FILL YOUR TANKS WITH THAT EXTRA-SUPER
CENSORED!
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Leon Womble, Manager

In New Orleans • THE ST. CHARLES
J. J. (Mike) O'Leary, Vice Pres. & Mgr.

In Louisville • THE KENTUCKY
James E. Rushin, Manager

•

CARLING DINKLER, President

CARLING DINKLER Jr., V.P. & Gen. Mgr.

•

AIRPORTS

CAA Sponsors Fire Prevention Meeting

More than 150 state and municipal airport officials met in New York on November 15 and 16 to attend an airport fire protection conference and demonstration sponsored by CAA's Region One officials. It was generally agreed by all present that the program represented a forward step in bringing about more adequate safety measures at airports.

The airport operators are generally concerned over the possibility of the National Fire Protection Association's standards being adopted but in most instances the operators are not qualified to judge their merit. They object to the provisions on the basis that they are economically impossible, not that they are technically incorrect.

Typical of the reactions was that of William Lyon, manager of the Norfolk Municipal Airport in Virginia. Lyons pointed out that his airport handles a volume of operations comparable with La Guardia Field in New York, in fact it exceeded La Guardia's operation in one month this year. Total airport operating budget there is $65,000 per year. Figures obtained by Hervey Law of the Port Authority of New York, and presented at an earlier NFPA meeting, indicate that a full time, five-man fire-fighting squad costs $100,000 per year in salaries and training. This compares with Lyons present fire-fighting budget of about $3,000.

Reviews Record. What are the justifications for such expenditures? To trace the history of known aircraft accidents involving fires (it is generally agreed that it is saving of life, not reduction of property loss through structural fires, that is critical), the CAA had CAB's Ben Ashmead, chief of the statistical analysis section on hand. Ashmead traced the accident record of the air carriers in the period from 1946 through the first nine months of 1949.

Of 465 accidents included in this period, 60 involved fires following impact, 13% of the total. Of the 60 involving fires after impact, 68% of these resulted in at least one fatality. Nineteen (32%) of the 60 cases mentioned, said Ashmead, occurred on or very close to the airport. Of this group of 19, only five involved fatalities. Of these five, only three were among the scheduled air carriers and only one of the three accompanied passenger-carrying operations.

Ashmead's records further showed that 24% of the 41 fatal accidents occurred on the airport or within ¼ mile of it, 12% between ½ and one mile; 2% between one and two miles, 10% between two and three miles, 5% between four and five miles and 47% were beyond five miles.

Fire Film. During the afternoon session, a movie on "The Chemistry of Fire" was presented followed by talks by Jerome Lederer, president of the Flight Safety Foundation, Henry A. Earsy, fire marshal with United Aircraft Corp. and Lyon. Lederer and Earsy presented the apparent extremes in protection equipment. Earsy described the arrangements at Rentschler Field where there is a crew of 61 firemen backed by 500 volunteers from the UAC plants on the field. Lederer discussed the manner in which operators of the smallest airports could best prepare for possible fires. Among his suggestions were such down-to-earth suggestions as leather gloves, cutting pliers, pinch bars, long handled shovels, blankets, grappling hooks, transportation provisions, axes, etc.

By the time the day's session was over, these in attendance had a much better picture of what the potential hazards are and how the large and small airports can gear, within their economic limitations, to meet the danger.

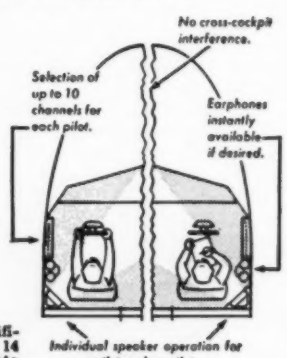
On the second day of the meeting, following a USAF movie on "Crash Rescue," the delegates visited New York International Airport where 12 equipment manufacturers displayed their fire-fighting equipment. Following an explanation of the fire protection procedures as established by the Port Authority, given by Hervey Law, the fire crews at the airport staged a fire drill using an old aircraft fuselage, and effecting a "rescue" from the gas-soaked, burning fuselage.

TO PILOTS OF TWO-PILOT AIRCRAFT, AND AIRCRAFT RADIO SYSTEM ENGINEERS

NEW FREEDOM OF CONTROL
LESS PILOT FATIGUE

with the Type F-11 Isolation Amplifier
CAATC No. 1R4-1

The new A.R.C. Isolation Amplifier performs two important radio control functions that have long presented problems. (1) Each pilot has **independent** selection of up to ten audio input channels in **any combination**—without cross-cockpit interference. Radio functions may be delegated so that each pilot works at peak efficiency in complex navigational and communication situations. (2) It operates individual cockpit speakers, with earphones instantly available if desired. Since the CAA no longer requires wearing of headphones when cockpit speakers are installed, the A.R.C. Isolation Amplifier relieves pilots of considerable discomfort and fatigue—particularly in hot weather and on long flights.


No cross-cockpit interference.
Selection of up to 10 channels for each pilot.
Earphones instantly available if desired.
Individual speaker operation for pilot and co-pilot.

Weight: 8 lbs. CAA Type-Certificated. Immediate delivery in 14 or 28 volt dc models. Complete technical details on request.

ARC Aircraft Radio Corporation
BOONTON, NEW JERSEY
DEPENDABLE ELECTRONIC EQUIPMENT SINCE 1928

Airport Notes

Los Angeles Airport Commissioners have awarded a contract in the sum of $38,947 for the installation of high intensity lights along the main instrument runway at **L. A. International Airport** . . . CAA has formally commissioned the slope line approach light system at **New York International Airport,** first operational installation of its kind.

Omaha will recondition four runways at its Municipal Airport and turn them over as landing strips for lightplanes upon completion of construction of a new 7,000-foot concrete runway and extension of another concrete strip to 6,000 feet.

The **Chillicothe (Mo.) Municipal Airport,** idle since the first of the year, has resumed operations under a new lessee, **Oscar A. Cooke,** and a new manager, **Dean Martin** . . . City of Jackson, Mich., has acquired additional land needed to lengthen the main runway at **Reynolds Field** and permit possible resumption of service there by American Airlines . . . Rhode Island State Dept. of Public Works is ready to start land condemnation procedings for the $2,000,000 development of the State's No. 1 airport at **Hillsgrove,** near Providence.

Beaumont, Tex., is said to be considering abandonment of its 275-acre airport near Amelia, feeling that the county airport can serve the area adequately without need for a municipal field. City voters will have to approve the abandonment . . . **Lincoln, Nebr.,** city council has approved a 25-year lease of 19 acres of land and five buildings to the Navy at Municipal Airport. Navy will share in runway maintenance and fire protection.

Ground has been broken for a new $220,000 administration building at **Oneida County Airport,** Utica, N. Y. Building will be opened next spring . . . The first story of the two-story administration building at **Waterloo (Ia.) Municipal** is completed, and the $160,000 terminal will be ready for occupancy early next year .

The 6, 200-ft. runway at **Lovell Field,** Chattanooga, will be ready about Christmas.

CAA Airport Grant Offers

For the two-week period ended November 12, Federal-aid airport grants totaling $642,894 were made to 12 communities by the Civil Aeronautics Administration, as follows, with classes in parentheses:

Florida: Miami International Airport (6), $75,000.

Louisiana: Monroe Municipal (4), $8,375; Iberia Parish Airport (3), $15,955; Shreveport (New Shreveport Mun.) (5), $10,619.

Michigan: Detroit-Wayne Major (6), $357,000.

Montana: Superior Airport (2), $1,285.

Nebraska: Fairbury Mun. (2), $6,983.

Pennsylvania: Beaver Falls (Beaver County Airport) (2), $92,000.

Texas: Lubbock Mun. (5), $50,000.

Utah: Cedar City Mun. (3), $81,916; Junction Airport (2), $23,168.

Washington: Packwood Emergency Airport (1), $20,593.

These boosted the Federal-aid grants through November 12 to 1,011 and the Federal funds involved to $91,293,178.

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SEND FOR NEW, DESCRIPTIVE FOLDER
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PRETESTED IDEAS

Light Reflector

SOMETIMES it's difficult to tell if the navigation lights are actually operating while flying at night. Gene Taylor, electrician at Southwest Airmotive Co., in Dallas, turned out this reflector which is used to simplify the problem. The reflector is made of ⅛" plexiglass and which has been machine cut to size and hand sanded. As shown here, the reflector is readily attached to the wing. A large hole in the plexiglass provides the opening for the light and three small holes match the standard light fixture attaching holes. When the lights are "on," the reflector carries some light rays up above the wing surface where the pilot can visually check light operation.

These units, which are made in different shapes to suit varying installations and pilot interests, are now being marketed by Southwest at $2.20 per set. The installation shown here is on a Beechcraft Bonanza.

Non-Skid Sidewalks

WITH PASSENGERS in a hurry to board an airplane, make a connection or meet friends, the concrete walkways at Los Angeles International Airport have been a potential hazard. In their conscious effort to keep the airport safe, the airport staff programmed this change to provide safe walking surfaces.

The surfaces were cleaned down, coated and then covered with strips of "safety-walk," a roughed-up surface which provides good traction even when wet. Rollers were used to insure that the stripping makes good contact with the sealant and concrete base.

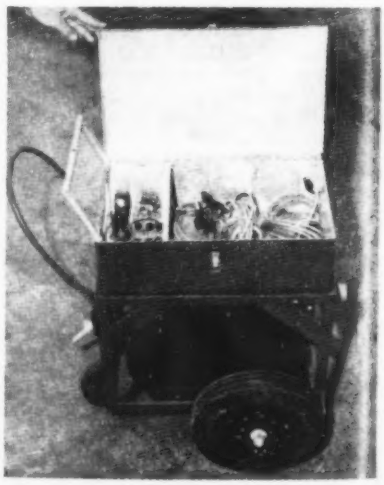
Shown "test-hopping" the installation are (left to right) TWA stewardess Mary Bullock, Woodruff De Silva, manager of the airport and UAL stewardess Lauril Mitchell. Workmen making installation at left are Wilbur Hackamack and Lyle Huffman.

Communications Set

SINCE the advent of the large transport, mechanics have had a time-consuming problem in rigging controls, adjusting system clearances and generally accomplishing work which required coordination of the work of two men at opposite extremes of the aircraft. Typical of these difficulties is the trouble experienced in rigging primary control surfaces when the man in the cockpit must respond to requests by the mechanic making measurements. Even without the noise which often accompanys such work, the problem is a real one which complicates the task and increases the cost of maintenance.

At Eastern Air Lines' base in Miami, the electronics engineering section of the communications department built this portable inter-com set which eliminates the problem. The unit consists of a carriage-like cart with a built-in, automatic-feed reel, dual headsets and related equipment. The reel carrys 160 feet of cord which is adequate for the most extreme separation but the automatic feed prevents tangling and other problems related with excessive cord lengths when used on less widespread applications.

A novel feature of the unit is the special microphone-headset combination which enables the mechanic to use the unit without interference with his hands which remain free for the work at hand. The microphones are of the differential anti-noise type, making normal conversation possible under adverse noise levels.



Expert Agent Helps:

Operators Urged to Tailor Insurance to Specific Needs

A question of considerable importance to the airport operator and fixed-base operator is that of how much and what types of insurance to buy in order to be adequately protected against all reasonable contingencies.

John C. Kendall of Rochester, N. Y., who has been writing aviation insurance for 17 years, offers some advise which he thinks will help aviation people avoid underbuying—or overbuying—insurance, which is one of their largest single items of expense.

Since most operators cannot afford nor do they need all types of coverage, says Kendall, it becomes necessary to tailor your insurance program carefully to meet your specific needs, buying only what is necessary without being penny-wise and pound-foolish. The way to do this, he adds, is to have your needs analyzed, receive quotations on all forms needed, and then decide what you wish to buy and can afford.

Agent Is Key. Speaking at a recent airport operators' meeting, Kendall said the key to intelligent purchasing of aviation insurance is to deal with an agent who is well versed in aviation insurance—a highly specialized field.

"Most any agent can take an order, deliver a policy and collect a premium," he said, "but to really be of service to you . . . he must learn all about your operations, diagnose your insurance needs and advise you what coverages are needed. Many times he can suggest a slight change in your operations which would reduce your insurance costs." He pointed out that while most insurance companies offer standardized coverages, these may be altered to meet individual needs when necessary.

Common Coverages. Airport liability coverage he said, is needed by practically every fixed-base operator and every airport owner or operator. This covers your liability for claims arising from people being on the airport, in your office, or using your field—the person who trips over a sill, the person who becomes ill from eating food you have sold him, the person whose plane is damaged by a hole in the runway, etc.

The airport liability policy, however, excludes operation of your own aircraft and does not cover an airplane in your possession for storage or repairs. Hangarkeepers coverage protects in this case, since the operator may be held liable if a customer's plane is damaged through his or his employes' negligence.

Aircraft liability coverage is necessary, Kendall said, if you own, lease or rent or in any way operate an aircraft. He pointed out, however, that such policies are voided by violation of certain Civil Air Regulations, such as those pertaining to acrobatics, night flying and periodic relicensing.

He stated that one way to tailor such insurance to an operator's needs is to suggest designating certain airplanes to be used for passenger and charter work and the remaining ships to be used only for student instruction and rental. Where this can be done feasibly it reduces the passenger liability premium about 50%.

Another type of insurance—medical payments coverage—is offered on privately-used planes and pays the medical expenses of each occupant regardless of legal liability.

Property Coverage. Leaving his discussion of the types of coverage which protect the operator in cases in which he may be held liable, Kendall touched on a few forms of property insurance which reimburse the operator for the loss of his own property, chief of which are the various types of hull insurance: fire and transportation, all-risk excluding crash or all-risk including crash.

"Many times I am asked by prospects if they should carry 'in-flight' or crash coverage," said Kendall, adding:

"There is no clear-cut answer, of course, but in tailoring an insurance program we have to consider the value of each of the planes, the prospect's repair facilities and general financial condition, and the number of planes to be insured."

"Normally, I believe it best to insure the high-value planes for in-flight coverage, since loss of an expensive plane would result in a loss of possibly a seriously high percentage of the assets. While it is true that trainers are more subject to in-flight losses, in buying insurance you should consider first what the consequences of a loss would be and not what the likelihood of a loss would be."

All-Risk Advised. The speaker went on to say that whether or not you buy in-flight coverage the need for all-risk excluding crash, known simply as ground coverage, should not be overlooked because of the concentration of risk. All an operator's planes may be destroyed in one fire or windstorm (there have been several such instances this year). And fire insurance on airport buildings and contents should not be treated lightly, due to the inadequacy of protection at most airports.

Kendall said the type of insurance seldom considered is use-and-occupancy or business interruption coverage, which is designed to reimburse the property owner for operating losses following a fire. While the operator is rebuilding, the interest on his mortgage loan, his property taxes and the salaries necessary to keep his organization intact can amount to a large sum, while income may be greatly reduced or entirely stopped during this period.

Finally, Kendall touched on personal accident coverage which he said is available for practically all aviation purposes—for airline passengers, charter passengers, student, private and commercial pilots.

"Don't lose charter business because your passenger thinks he is not covered under his life and accident policies," he said. "Many times he is covered, and if he is not, coverage may be secured quickly and at moderate cost."

But whatever you do in the way of buying insurance, Kendall warned, the important thing is to seek the counsel of a competent and experienced agent.

"Your agent must be a man in whom you have confidence, just as an airplane owner must have confidence in the mechanic who maintains his plane," he concluded.

Aeronca's Financial Position Reported Much Improved

A representative group comprising one-third of the Aeronca Aircraft Corp. distributor organization, in a meeting at Middletown, Ohio, last month, placed firm orders with deposits for aircraft totaling well over $400,000. The company did not state the type ordered.

Aeronca also disclosed that it has taken steps toward refinancing. The Reconstruction Finance Corp. has approved an additional $200,000 loan, and a group of Middletown business men are arranging to lend funds to match the RFC loan.

In addition, the stockholders have approved an issue of $400,000, 5½% prior participating preferred stock. Preferred creditors, with claims totaling about $1,000,000, have agreed to compromise their claims and accept approximately 200,000 shares of the 5½% PPP stock. This has had an extremely favorable reflection of the company's surplus; on July 31, Aeronca had a deficit of $31,000; with the injection of new working capital and the issuance of the stock, the company's surplus will be $1,300,000.

Aeronca has $1,300,000 in Air Force and Army Ordnance backlog as of October 31.

Personal Plane Shipments 2,898 for 1st Nine Months

Personal plane shipments by 10 companies reporting to the Aircraft Industries Association totaled 2,898 planes with a total dollar value of $12,135,000 for the first nine months of this year.

Shipments for the same nine months

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LOCAL OPERATIONS

of 1948 totaled 5,990 planes valued at $23,401,000. This year's figure included 2,005 four-place planes, 599 two-place, and 60 one-place aircraft.

The following table shows shipments for the period, by companies:

Company	Jan.-Sept. Shipments
Aeronca	
Champion 65 hp	1
Champion 86 hp	15
Chief 65 hp	1
Superchief 85 hp	16
Sedan	167
7CCM(a)	78
Beech—Bonanza	235
Bellanca—Cruisair	26
Cessna	
120	9
140	38
140A	135
170	292
170A	116
190	20
195	126
Engineering & Research	
Model E	5
Model G	39
Mooney—M-18L	60
Piper	
Cub Special	230
Supercruiser	1
Family Cruiser	37
Vagabond	63
Clipper	645
Stinson	130
Ryan—Navion	185
Taylorcraft	
BC12D-85	25
BC12D-65	4
Texas Engineering	
Swift	43
TOTAL	2,898(b)

(a) Military type aircraft sold to other than U. S. Military customers.

(b) Includes shipments by Luscombe of 39—8A's, 102—8F's and 15 Sedans valued at $417,000.

Fixed-Base Briefs

A **1950 National Air Races** program at Cleveland was assured last month when mayors of Cleveland suburbs met with race officials and gave their approval to a race program to be run in accordance with the stricter safety regulations adopted in October by a special technical subcommittee of the National Aeronautic Association. There will be some slight changes in the seven-pylon speed course.

Johnny Hinson has returned to Baltimore Municipal. His company, Hinson Aero, plans to acquire an approved shop certificate (propeller rating) and become a Koppers Aeromatic authorized station . . . Shop rights of **Atlantic Aircraft Distributors** at Baltimore have been leased to "Chuck" Snider and "Denny" Dennison.

Russ Hisson, director and chief instructor at **Commerce Airport,** Zanesville, O., has a new twin-engined Cessna and is starting a class in multi-engine flying . . . George Robbins has set up an extensive fixed-base operation under the name of **United Air Service** of **Texas** at his field near Cuero, Tex.

Forest Fiorini of Delhi, Calif., has been elected president of the Flying Farmers of California, Inc., succeeding J. Bernell Harlan of Woodland . . . **Eagle Lake (Tex.) Airport** is now a CAA-rated airport. Tommy Pilkington, manager, has Piper, Stinson and Ryan dealerships.

Aviation Sales and Service

How to Increase Sales: Every local operator and distributor should be actively interested in increasing their sales and the important "how" phase of the problem attracted considerable attention at the seventh annual meeting of Aviation Distributors and Manufacturers Association at French Lick, Ind., last month. Many favorable comments followed the talk by Earle M. Scott, Scott Aviation Corp., Lancaster, N. Y., outlining a three-point basic sales program.

Here's his time-proven principles for increasing sales: (1) *Know more about your product and make sure your salesmen do.* Salesmen must tell the potential buyer *what* the product will do for him rather than stress the specifications of the product itself. All too often lack of effort and knowledge are responsible for slow moving products. (2) *Sell selectively.* Unprofitable accounts should be eliminated; sales costs can be reduced by ignoring areas where the potential is low and concentrating on the area showing greatest promise. (3) *Train salesmen to be good salesmen.* Studies show that 20% of the salesmen account for 80% of sales volume, indicating there's much to be gained by education of sales staffs. Many sales are lost through failure of the salesman to close strongly and well.

While the foregoing points are admittedly not revolutionary in salesmanship, they do offer solid guideposts to follow in generating business.

Creating Local Interest: *Here's an idea which Clyde Sharrer of El Paso (Texas) Airport has used to good advantage to get local publicity and create local interest in the airport. He bought a tape recorder and when prominent people come through the airport, as they frequently do, he makes an interview on the recorder and turns the tape over to the local radio stations which are more than willing to broadcast it. In the hope of seeing celebrities the townfolk have been visiting the airport and the airport restaurant more frequently.*

New Tie-Down Plan: Charles B. Haas, president of Dixie Aero, Inc., at Dixie Airport, Annapolis, Md., has come up with a plan which he believes will be beneficial both to the airport and to the owners of planes basing there. There is free tie-down for all aircraft, regardless of size, but each plane owner must spend a minimum of $5 per month at the airport. This may be spent for gas, oil, service, parts, etc. When a plane is completely inactive and the owner does not fly at all in a given month he is assessed the $5 minimum, which then in effect becomes a tie-down charge.

Flying for Wives: *The newly-reorganized Vandalia Flying Service, at Vandalia, Ill., has begun a study of means and methods of promoting more husband-and-wife participation in flying for pleasure as well as for transportation purposes. If they come up with something that works, we'd like to hear about it, because many men fly less than they'd like because the little woman objects, and most of them would fly more if the Mrs. could be interested in going along.*

Caters to Sportsmen: Jean A. Cook, the hard-working manager of Nantucket (Mass.) airport, has done an excellent business this fall by catering to sportsmen flying in to take advantage of the game available there—pheasant, duck, rabbit, and deer—and the fall sport fishing. She has a restaurant and snack bar on the airport, and jeeps, automobiles and bicycles are available for rent. In addition, she'll arrange for a boat, a guide or other needed services. She believes firmly that a little extra service and courtesy pays off.

Aid from CAA: *Greater use by American business of the facilities of the aviation industry is part of a new CAA project being worked up in conjunction with the Department of Commerce. Del Rentzel, CAA head, told the National Aviation Trades Association meeting in New Orleans that the Commerce Department would use "all the proved methods of publicity, public conferences, direct mail, business advisory services, publications and fact-finding and research to show what the aviation industry has to offer to any given business or industry."*

With a GREER GENERATOR TESTER

The heart of the modern aircraft electrical system is the generator. And above all, this most vital electrical component must be kept dependable for safe aircraft operation. Dependability in flight is greatly enhanced by periodic ground checking on the Greer Generator Tester.

Built to handle generators rated up to 600 amperes at 30 Volts dc this tester will handle all generators used in present day aircraft. Power to drive the generator is supplied by an infinitely variable speed drive motor rated up to 35 hp and speeds up to 12000 rpm and is shock-mounted for smoothness. Generator temperature is accurately maintained within specified limits by a turbo-compressor blower and blast gate, while generator performance is readily indicated by accurate electrical instruments on a conveniently located instrument panel.

The slightest irregularity in generator performance or symptom of inpending failure are quickly detected on the Greer Tester.

Don't let the electrical system die of heart failure; send for details on the Greer Generator Tester Now!

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Delta Uses IBM Tabulator To Study Air Freight Flow

By ERIC BRAMLEY

Delta Air Lines is now using a new method of classifying all the air freight its carries, and expects that the system will enable it to do a better job of selling freight.

The new method involves the use of IBM machines and in short, enables Delta to know, for any given month, how much of a specific commodity traveled over its routes, the revenue it produced, how it ranked with other commodities, and other salient facts that will enable the company to direct its sales effort into the most productive channels, and also to find its weak points. It boils down to a better way of doing business—a better way of merchandising air transportation.

Pate

First step in establishing the system, according to Paul Pate, cargo traffic and sales manager, was to classify all the freight carried. Delta is using 65 classifications, culled from the hundreds listed in the National Motor Freight classification. The company believes that these 65 will cover just about everything that will move by air.

Classifications. Here are a few of the classifications picked at random: advertising matter, materials or displays; automobile parts, supplies and accessories (except engines); candy and confectionery; clothing and wearing apparel; fruits and vegetables; human remains; iron and steel articles; flowers; records, phonograph and radio transcriptions; seafood; poultry and baby chicks.

Every time a freight airbill goes through the accounting office, it is classified according to this list. Then, the IBM department cuts a card for each shipment, using a code number and also listing origin and destination, weight, revenue to Delta and, if it's an interline shipment, the originating carrier and point of interchange. Pate, who was formerly in the trucking business, explains that the system isn't new and has been used by some of the larger truck companies for a number of years. However, he doesn't believe that it has had a very wide application in the airline business.

At the end of each month, the IBM department runs all the cards through a tabulator, according to classification. For example, all the class 30's will be tabulated, giving the complete picture for the month on carriage of automobile parts, supplies and accessories. The job is completed by the 25th of the following month.

Summary Cards. At that time, the information is transferred on to cards which are kept in a file in Pate's department. A quick glance at the card for any classification will show number of shipments for the month, pounds, revenue and how it ranks with other classifications. Inasmuch as similar data for past months have already been entered on the card, it is also possible to determine the seasonal characteristics of certain types of shipments (the first month of the system was July and it will of course be several months before Delta will have sufficient background information to ascertain trends).

An obvious example of a seasonal shipment is flowers, which will move in heavy volume around Easter, and the airline knows that it should contact all shippers of flowers before that time in order to get shipping arrangements made. The seasonal nature of some other commodities, however, is not so obvious, and the new system will help determine this, and allow concentration of sales effort.

In addition to the file on the overall picture, use of the IBM cards will enable Delta to keep track of the freight shipped out of each station—the type, destination, revenue, etc.

Inasmuch as Delta was already using IBM machines for a number of other jobs, installation of the freight system entailed little additional expense, and the company believes that the information made available will be well worth the cost.

Cargo Station Directory

Air Cargo, Inc., has published a new Air Cargo Station Directory containing detailed information on the general policies, schedules, equipment, and station facilities of the nation's domestic airlines.

In loose-leaf form, it is to be revised monthly and copies may be obtained from Air Cargo, Inc., National Airport, Washington 1, D. C. Yearly rate is $10.

Education Booklet: A 20-page illustrated booklet, "Your Future in Air Transportation," has been prepared by United Air Lines as an educational aid for junior and senior high school classes. The booklet outlines benefits that air transportation offers to employes and analyzes necessary qualifications, duties and promotion possibilities of 33 different types of jobs. Copies may be obtained without charge from UAL school and college service offices located in Chicago, New York, Los Angeles, San Francisco and Seattle.

Open Air Counter—Western Air Lines couldn't wait for Ontario, Calif., to complete its new airport building, so it moved right in with an "open air" ticket counter while workmen continued the building's construction. This "al fresco" service will mark Western's traffic activities at Ontario until after January 1 when building is expected to be finished. Photo shows: L. J. Cunningham, Ontario station manager; James Montgomery, Los Angeles district sales manager; Robert Vernon, Ontario city sales manager, and George Cerveny, Los Angeles station manager, setting up opening day.

Coach Promotion—Sales promotion idea, developed by Casey Britt, Capital Airlines' Washington district sales manager, brings air coach advertising to the public through paper bands used by laundries on men's shirts. Capital furnishes the bands, and two Washington laundries are currently using about 150,000 monthly. Idea is also being used by Capital in New Orleans, Knoxville, Mobile and Birmingham.

CAB Briefs

Denial of **Chicago and Southern Air Lines'** application to add Chicago as a co-terminal on its Latin American route was recommended by Examiner Curtis C. Henderson, who said C&S's ultimate aim of operating nonstop flights between Chicago and Havana would divert a substantial amount of traffic from **Eastern Air Lines** and **Pan American Airways** currently moving through Miami.

United Air Lines has applied for an amendment to its Route 1 to permit operation of all-cargo flights between Boston/Hartford and points west of Akron via New York and Newark. The temporary exemption under which it has been operating such flights would have expired November 25 but is now valid for another five months as a result of the route amendment application. **American** and **Capital**, also operating under temporary exemptions, were expected to file similar applications.

CAB has authorized **West Coast Airlines** and **Challenger Airlines** to serve certificated intermediate cities on a flag-stop basis, with landings required only when traffic is available at or destined to such points. Previously both lines were compelled to land at all serviceable points.

Seaboard & Western Airlines has been authorized to provide free transportation (one roundtrip) between the U. S. and Europe to two persons associated with its insurance underwriters to enable them to make a "technical in-flight survey in connection with renewal of S&W's insurance contracts."

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. . . another good customer of MCA. Braniff's friendly cooperation has aided materially in expanding interline business mutually beneficial to us both.

DEEP IN "BRANIFF LAND"

Recently, when MCA's Tulsa District Manager found himself without the necessary facilities to service a Mid-Continent airliner departing from Oklahoma City on a charter flight, Braniff employees helped secure food to be served aloft and let us use their ticket counter to check in passengers and announce the flight. And, with the use of their ramp equipment, the MCA airliner departed on time.

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Over the Counter

By Eric Bramley

Sales Promotion

DO you know what Britannicam Transmarinam Aereanauticam means? Well, it's Latin for **British Overseas Airways.** We picked it out of a Latin letter that BOAC has sent to a number of Catholic priests in the U. S. The four-paragraph letter explains the advantages of using BOAC for travel to Rome during Holy Year. BOAC borrowed the idea from **British European Airways** and it's gone over in a big way. A couple of priests replied in Latin, while another one asked for an English translation . . . **Braniff Airways** is issuing attractive "official travel permits" authorizing travel in the Braniff States of America . . . **TWA** has kicked off an intensive campaign advertising Quickie Vacations.

United Air Lines is distributing to the traveling public two new two-color illustrated booklets, "Mainliner Flight Plan," and "Year 'Round Dependability," telling of steps involved in a typical airline flight and describing electronic aids contributing to timetable regularity . . . United is also using one-minute film spots on television to illustrate regularity and dependability. They're being used in Chicago, New York, San Francisco and Los Angeles, running for several months on a five-a-week schedule.

Continental Air Lines has started its sales bonus plan, under which station and sales personnel can increase their individual pay checks by as much as $100 for each three-month period. General office employes, maintenance personnel in Denver, and hostesses, pilots and operations employes will be paid a straight 5% commission on ticket sales for which they are responsible.

Traffic and Sales

NATIONAL Airlines has reorganized its sales department, establishing three sales regions, each under a regional director of sales. **T. A. Provost** was named to head the northern region, New York through Savannah; **Charles F. Sharp** the southern region, Key West through Jacksonville, and **James P. Van Pelt** the western region, New Orleans through Valdosta. These directors will meet with the general office sales staff every other month to help determine policies and to pass along recommendations of the men in the field.

British European Airways is opening a New York sales office under direction of Clive Adams, formerly traffic manager of the company's Continental services. Office is being established because of the "encouraging amount of dollar business" done by BEA during the past few months.

Advertising

WHEN an advertising agency digs into its own pocket and pays for, and sponsors, a newspaper advertisement on air safety, that's news. That's what happened in Washington last week when a 1,000-line ad appeared in two Washington papers over the signature of the **Lewis Edwin Ryan Organization,** a Washington agency. The ad was entitled "Air Safety—a Remarkable Record" and the agency said it was paying for it "as a public service and in a spirit of admiration for the achievements of the scheduled airlines of the United States . . . also because of our firm faith in the future of air transportation." Ryan handles ads for Capital Airlines and Air Transport Association but emphasized that this ad was placed "entirely independent" of its aviation affiliations and that Capital and ATA officials weren't consulted until after decision had been reached to run it. The ad, featuring the airlines' 1948-49 safety record, was a one-time shot . . . **Delta Air Lines** also did something new last week, using Chicago, Atlanta and Miami papers for a full page ad straight across two half-pages. Burke Dowling Adams agency, which has consistently done a good job for Delta, states that, as far as it knows, this is the first use of such an ad. Plugging Chicago-Miami service, the ad features a large, eye-catching drawing of the DC-6 cabin.

Services and Tariffs

NORTHWEST Airlines has filed a special Portland-Seattle to Honolulu commuter tariff to become effective Dec. 3, subject to CAB approval. As in similar tariffs of **Pan American** and **United,** proposed fare is $2,600 for books of 20 coupons. Average per ticket of $130 is $30 less than $160 normal one-way fare . . . **Scandinavian Airlines System** has asked CAB permission to cancel a $10 sleeper berth surcharge that has been in effect New York-Prestwick since Oct. 26. Cancellation was asked because British Ministry of Civil Aviation disapproved the charge. Before Oct. 26, the tariff was $45 . . . **Braniff Airways** is now accepting collect air cargo shipments on its international routes to and from Cuba, Panama, Ecuador, Peru, Bolivia and Brazil. However, the regulation does not affect Braniff's tariff rules which specify that certain shipments, such as perishable items, must be shipped on a prepaid basis.

U. S. Domestic Airline Traffic for September

Airlines	Revenue Passengers	Revenue Passenger Miles	Available Seat Miles	Passenger Load Factor	Mail Ton Miles **	Express Ton Miles	Freight Ton Miles	Total Ton Miles Rev. Traffic	Available Ton Miles Flown	% Available Ton Miles Used	Revenue Plane-Miles	Scheduled Miles	% Scheduled Miles Completed
				%									
American	312,056	142,960,000	208,793,000	68.47	699,276	524,756	3,066,240	17,849,444	28,894,918	61.77	4,931,112	4,825,268	99.58
Braniff	54,263	18,251,000	31,640,000	57.68	81,402	78,911	118,510	2,026,971	3,831,737	52.90	959,039	945,809	99.85
Capital	118,512	35,919,000	64,703,000	55.51	84,983	155,946	768,356	4,442,592	8,188,981	54.25	1,864,465	1,766,109	98.59
Caribbean	5,177	399,000	1,047,000	38.11	502	. . . .	2,582	34,993	116,723	29.98	45,224	51,648	87.56
C & S	35,036	10,205,000	19,100,000	56.38	41,856	56,021	67,465	1,144,886	2,110,129	54.26	661,383	660,376	99.34
Colonial	21,200	5,449,000	8,778,000	62.08	8,543	6,711	12,870	563,600	1,151,804	48.93	415,686	387,570	99.48
Continental	17,565	6,562,000	13,932,000	47.10	18,200	8,113	33,919	688,473	1,486,228	46.32	494,885	484,435	99.67
Delta	44,861	16,393,000	31,476,000	52.05	62,949	61,113	210,841	1,908,543	4,401,710	43.36	1,086,699	1,084,942	99.68
Eastern	188,874	78,805,000	142,482,000	55.31	357,857	287,908	686,301	9,336,559	20,289,181	46.02	4,243,001	4,249,445	99.49
Hawaiian	22,223	2,988,000	5,240,000	57.02	4,549	8,604	60,843	330,004	485,476	67.97	243,857	212,431	99.06
Inland*	8,313	3,245,000	5,289,000	61.35	9,387	5,507	11,831	338,160	545,261	62.02	269,701	273,840	98.49
MCA	31,342	9,116,000	15,831,000	57.58	24,556	20,031	32,225	950,709	1,809,199	52.55	753,833	743,160	99.88
National	23,097	12,377,000	28,257,000	43.80	30,892	44,053	100,738	1,435,063	3,890,020	36.89	826,327	833,184	99.10
Northeast	33,426	6,451,000	12,656,000	50.97	6,527	9,895	25,533	625,270	1,276,631	48.98	394,768	378,338	95.57
Northwest	77,985	47,131,000	73,668,000	63.98	185,505	156,102	434,965	5,298,161	9,513,369	55.69	1,778,118	1,661,984	99.41
Trans Pac.	8,104	1,086,000	2,858,000	38.00	. . . .	. . . .	3,429	84,170	255,588	32.93	103,100	88,701	96.53
TWA	139,603	92,887,000	135,821,000	68.39	652,590	470,867	1,136,177	11,182,253	17,250,729	64.82	4,321,854	4,175,871	99.26
United	220,051	128,846,000	172,297,000	74.78	899,397	578,314	2,232,723	16,014,382	25,978,549	61.64	4,790,352	4,670,521	99.29
Western*	36,677	13,454,000	22,596,000	59.54	30,037	26,497	27,857	1,368,334	2,436,714	56.15	591,232	510,264	99.17
TOTALS	1,398,365	632,514,000	995,464,000	63.53	3,099,008	2,499,349	9,033,405	75,622,567	133,912,947	56.47	28,774,636	28,003,896	99.27

* Operations of Western and its subsidiary, Inland, should be considered as consolidated, although reports are filed separately as shown here.
** Includes air parcel post.

U. S. International Airline Traffic for September

Airlines	Revenue Passengers	Revenue Passenger Miles	Available Seat Miles	Passenger Load Factor	U. S. Mail Ton Miles *	Foreign Mail Ton Miles	Express Ton Miles	Freight Ton Miles	Total Ton Miles Rev. Traffic	Available Ton Miles Flown	% Available Ton Miles Used	Revenue Plane-Miles	Scheduled Miles	% Scheduled Miles Completed
				%										
American	7,539	5,729,000	8,899,000	64.38	8,749	2,875	. . . .	80,723	733,378	1,147,419	63.92	177,620	175,740	100.00
Amer. O'Seas	9,864	18,233,000	30,770,000	59.26	94,816	43,141	284,758	. . . .	2,356,087	3,885,672	60.64	762,735	701,644	98.42
Braniff	1,233	2,915,000	6,781,000	42.99	1,061	579	. . . .	13,799	296,927	995,545	29.83	144,551	145,881	99.01
C & S	1,718	2,594,000	8,281,000	31.32	1,612	522	. . . .	23,152	295,849	1,076,736	27.48	179,456	179,456	100.00
Colonial	933	726,000	2,088,000	34.77	787	76	. . . .	549	77,854	306,423	25.41	47,456	54,716	86.73
Eastern	1,579	1,642,000	3,058,000	53.70	5,998	. . . .	. . . .	21,281	202,326	384,540	52.62	62,400	62,400	100.00
National	5,600	1,583,000	3,059,000	51.75	1,186	. . . .	22,696	. . . .	185,849	442,815	41.97	61,838	61,000	94.43
Northwest	3,509	7,221,000	10,688,000	67.57	137,792	17,572	8,927	407,172	1,339,792	1,872,166	71.56	465,580	467,135	99.38
Panagra	7,533	8,567,000	16,980,000	50.45	24,430	17,788	116,256	. . . .	1,095,204	2,267,135	48.31	452,247	472,383	92.60
Pan American														
Latin Amer.	57,430	52,171,000	86,488,000	60.32	206,773	54,304	1,452,426	54,087	7,045,747	12,676,088	55.58	2,337,111	2,451,870	94.57
Atlantic	13,122	34,647,000	58,961,000	58.76	219,112	82,559	705,415	2,846	4,778,409	8,962,789	53.31	1,619,893	1,678,600	95.26
Pacific	8,078	23,186,000	35,235,000	65.80	404,157	70,169	742,457	. . . .	3,540,808	5,590,535	63.34	1,160,210	1,139,322	99.99
Alaska	4,753	4,118,000	7,242,000	56.86	36,477	. . . .	422,186	. . . .	881,660	1,508,618	58.52	226,807	213,259	98.15
TWA	10,610	30,754,000	46,359,000	66.34	207,366	110,509	451,809	. . . .	4,145,090	6,422,376	64.54	1,351,264	1,302,758	99.68
United	2,608	6,176,000	9,016,000	68.50	51,602	. . . .	42,162	. . . .	739,848	975,577	75.84	206,720	206,400	100.00
TOTALS	136,109	200,262,000	333,905,000	59.97	1,401,918	400,094	4,249,092	603,609	27,714,828	48,514,434	57.12	9,254,888	9,312,564	96.97

* Includes air parcel post.

U. S. International Airline Revenues & Expenses for August

Airlines	Total Operating Revenues	Passenger Revenues	U. S. Mail Revenues	Foreign Mail Revenues	Express Revenues	Freight Revenues	Excess Baggage Revenues	Non-Scheduled Transport Rev.	Total Operating Expenses	Aircraft Operating Expenses	Ground & Indirect Expenses	Net Operating Income
	$	$	$	$	$	$	$	$	$	$	$	$
American	358,400	311,578	7,021	9,509	. . . .	16,565	4,671	. . . .	318,819	145,034	173,785	39,580
Amer. O'Seas	2,421,610	1,828,163	309,736	157,589	101,213	. . . .	16,770	. . . .	2,114,904	1,060,513	1,054,391	306,706
Braniff	369,199	214,282	137,869	2,469	. . . .	9,199	4,025	. . . .	351,753	160,205	191,548	17,446
C & S	362,657	216,041	129,363	849	. . . .	8,181	8,152	. . . .	315,265	157,433	157,832	47,392
Colonial	103,908	72,926	29,586	321	. . . .	397	162	. . . .	126,818	53,265	73,553	-22,910
Eastern	66,496	56,524	3,874	. . . .	. . . .	5,252	846	. . . .	77,189	36,626	40,563	-10,693
National	146,203	123,591	10,105	. . . .	7,933	. . . .	1,804	2,770	143,224	64,240	78,984	2,979
Northwest	1,237,264	563,266	480,071	43,387	2,704	132,564	6,374	. . . .	801,226	351,157	450,069	436,037
Panagra	1,294,134	778,220	338,284	69,769	67,371	. . . .	30,950	3,086	1,164,525	552,467	612,058	129,609
Pan American												
Latin Amer.	5,583,568	3,672,103	1,084,091*	155,307	501,672	. . . .	116,118	15,732	5,272,463	2,163,520	3,108,943	311,105
Atlantic	5,502,139	3,040,310	1,815,505*	186,930	315,413	. . . .	74,548	36,236	5,127,925	2,740,981	2,386,944	374,214
Pacific	2,983,233	1,566,788	1,018,691*	81,946	270,496	. . . .	27,697	2	2,785,742	1,454,426	1,331,316	197,490
Alaska	466,262	301,596	47,848**	. . . .	99,721	. . . .	1,614	15,732	438,987	209,013	229,974	27,274
TWA	4,154,044	2,737,231	796,521	252,799	237,086	. . . .	69,012	19,727	3,372,757	1,664,887	1,707,870	781,287
United	485,837	418,913	31,806	. . . .	17,005	. . . .	3,694	. . . .	326,240	179,348	146,892	159,597
TOTALS	25,534,954	15,901,532	6,240,371	960,875	1,620,614	172,158	366,437	93,285	22,737,837	10,993,115	11,744,722	2,797,113

* Represents company's estimate of amount which should be received in accordance with terms of the Civil Aeronautics Act when permanent rates are established. Estimate exceeds temporary rates in effect by: Latin American Div. $712,332; Atlantic Div. $1,264,883; Pacific Div. $137,119
** Temporary rate in effect exceeds estimate of amount which should be received in accordance with terms of Civil Aeronautics Act by $72,116.

CLASSIFIED ADVERTISING

Undisplayed Advertising: $1.00 per line, minimum charge $4.00. Cash with order. Estimate 30 capital letters and spaces per line; 40 small lower-case letters and spaces per line. Add two lines if Box Number is included in lieu of advertiser's name and address.

Displayed Advertising: $10.00 per inch for less than 15 inches in one issue or in any 12-month period. For more than 15 inches, $8.50 per inch; more than 30 inches, $8.00; more than 60 inches, $7.50; more than 90 inches, $7.00; more than 120 inches, $6.50. Space units up to full pages accepted in this section for classified-type advertising.

Forms close 20 days preceding publication date. Address all correspondence to Classified Advertising Department, AMERICAN AVIATION PUBLICATIONS, 1025 Vermont Ave., N. W., Washington 5, D. C.

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ICAO Publications Available

The following publications have been released by the International Civil Aviation Organization and copies are available from the Secretary General of ICAO, International Aviation Building, 1080 University Street, Montreal, Canada, at the prices indicated:

Standard and Recommended Practices

Annex 6—Operation of Aircraft, Scheduled International Air Services. 25c

Annex 7—Aircraft Nationality and Registration Marks. 10c

Annex 9—Facilitation of International Air Transport. 25c

Measurement of Ambient Air Temperature in Flight. 10c

African Indian Ocean Regional Air Navigation Meeting

Final Report of the General Committee. 10c

Final Report of Subcommittee 1 of the General Committee. 45c

Final Report of the Seach and Rescue Committee. 15c

Final Report of the Communications Committee. 65c

Final Report of the Air Traffic Control Committee. 15c

Final Report of the Aerodromes and Ground Aids Committee. 25c

Final Report of the Meteorological Committee. 65c

The Department of State has released the "Second Report of the Representative of the U. S. of America to the International Civil Aviation Organization" covering the period April 1948 through June 30, 1949.

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LETTERS

Seeks Industry Voice

To the Editor:

I have been a subscriber to your periodical for a number of years and have been interested in reading your editorials. I was particularly interested in your editorial in the October 15, 1949 issue.

It is indeed unfortunate that civil aviation, in all its branches, does not have one parent organization with enough authority and respect from the powers-that-be, to be able to act as a voice for the civil aviation industry as a whole. When the National Aeronautic Association was formed, it appeared that this might turn out to be the answer to the problem, but such has not been the case.

Prior to the war a new organization composed of operators having CPT contracts sprung up, gathered impetus and was well on its way to become the voice of civil aviation. Out of this organization grew the National Aviation Training Association which later took in all branches of civil aviation and changed its name to the National Aviation Trades Association.

This organization was doing very well under the direction of Roscoe Turner until his efforts were sabotaged by members of the organization who had petty grievances and it has now become a DISorganization with very little or no voice in national policies.

We have, throughout the years, in most cases, strung along with the CAA as the one organization who could, given the opportunity, be the guiding light of civil aviation. Had the aviation phase of the veterans training been under the CAA's jurisdiction entirely, with the VA acting only as a paying office, we would not be faced with the disgraceful waste of VA appropriations that has occurred since that office came into being. I believe the results of the highly successful Civilian Pilot Training Program prior to the war will bear me out in this assertion.

To quote you in saying that the "VA can take the gold medal for all time as being the most outstanding double-crossing agency in government history" is an understatement. My partner, Mr. Golding, and I have made numerous trips to Washington at our own expense in order to do our bit in seeing that the VA administer its flight training program in keeping with the intent of Congress.

We sat in conferences with Mr. Stirling, Mr. Monk and their henchmen and listened to their promises. We were there when General Gray was called on the carpet and promised Mrs. Rogers' Congressional investigating committee that the discrepancies in the VA Flight Training Program would be straightened out.

After this hearing we returned home feeling that at last something worthwhile had been accomplished only to find that not only the flight operators, but Congress itself, had been hopelessly double-crossed. New directives were issued to district administrative offices which only added more fuel to the fires of confusion already in existence.

We agree with you that "somewhere in the United States Government there should be a major agency devoting its sole attention to civil aviation in such a way that when an agency such as VA double-crosses on flight training, a correction can be effected immediately in the national interest." But Mr. Parrish, it is only with your support and the support of every aviation publisher in America that this agency can be found and then backed to the hilt when it speaks.

J. WALTER MARTIN
Aircraft Associates
Long Beach Calif.

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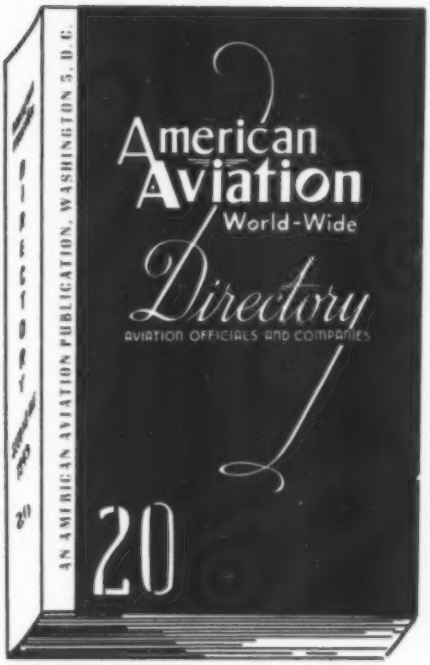

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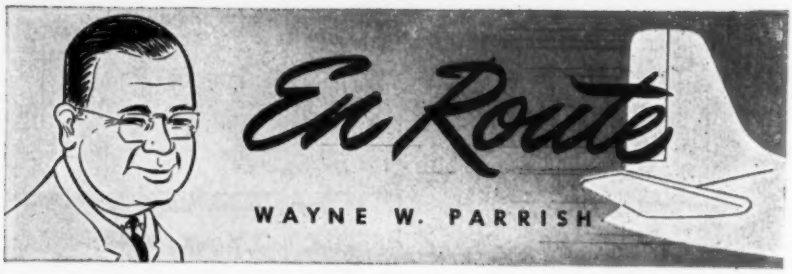

MIRACLE MAN. Let's put aside temporarily the lure of faraway lands and attend a couple of conventions, visit some local operators and meet some good folk who are doing things in this flyin' business.

En route to that ADMA convention at French Lick, Ind., I met a man you'll be hearing more about. He's **John Lawler,** who took over the presidency of Aeronca Aircraft Corp. at Middletown, O., when Aeronca was having so many financial troubles that only a near-miracle could pull it out. Lawler has performed the near-miracle. Make no mistake about it, he's no flash in the pan. He impressed me as being one of the healthiest and most refreshing tailwinds to hit the airways in a long time. Believe it or not, he's a business man, and that's something the aviation industry can use a lot of—business sense. Lawler isn't fooling himself or anybody else about Aeronca's situation and about aviation. But I think he'll make a name for himself with Aeronca. Could be wrong, of course, but I'd be willing to back up my belief with a cold cash wager.

From Middletown, **Len Eiserer** and I shot down to Greater Cincinnati Airport outside Covington on the Kaintuck side of the Ohio River, and spent the afternoon with **Bob Isenberg**, the manager. We picked up a lot of good information about airport revenues. The terminal and surroundings, incidentally, were clean as a whistle. I've been impressed with this airport ever since it opened.

* * * *

EVANSVILLE. Len and I should have been flying to French Lick but we weren't, although there is an airplane in **American Aviation's** future. The weather was excellent and the Ohio River scenery good, even if French Lick Springs out of season isn't a good place for a small convention.

Having an extra day we hied ourselves down to Evansville and on the way we dropped by to see **John Prise** who runs the Huntingburg Flying Service at Huntingburg, Ind. Prise is doing okey. He's averaging 2,000 gallons of Texaco to transients every month and taking in about $50 each weekend from charters and sightseeing, and pretty soon he'll be flying baby chicks three trips daily in his Norseman to Nashville. He's an operator who'll make out even in slim times.

If anybody's looking for a Case History in aviation, let me recommend Evansville, Ind., where **M. E. Boelson** runs the municipal airport. Just before the war this airport had 42 private airplanes based on it and gas sales reached as high as 15,000 gallons a month. Then private aviation had to move out 'for the duration.' After the war things got going hot and heavy at Municipal, with nine operators in business and gas sales running up to 36,000 a month.

Today the postwar boom has just about been liquidated. Gas sales are right back down to that prewar peak of 15,000 gallons a month. The number of airplanes on the field is 41, just one under the last prewar figure. The nine operators have been reduced to four. But the four are pretty active.

Take **Jerry Leeds'** Midwest and Culver Flying Service. It has a sizeable GI training program, getting paid promptly by VA, and getting approvals for new students. Jerry is quite happy and optimistic, and keeps his three Taylorcrafts and one Cessna pretty busy.

Two of the other operators are backed financially by millionaires (which, we're told, sometimes helps in this flying business). One is **Ellis Carson's** Sky Service Corp. which has a good business of servicing executive and other private aircraft. The other is Coy Aviation, Inc., managed by **Frank Kelsch,** a Ryan dealer and apparently pretty busy. Kelsch was away on a charter trip when we stopped by. The fourth operator, **Bill Dorr's** Crescent City Aviation, Inc., has the Shell concession and sells about 8,000 gallons a month to transients, which isn't too bad.

Quite a bit of painting has been done lately so Evansville Municipal looks spruced up. Boelson has a new terminal building under way which will replace the overcrowded temporary airline terminal sometime in 1950.

On the way back to French Lick we dropped in on **Ray Clark's** Washington School of Aeronautics, Washington, Ind., and saw a lot of lightplane flying. He has 35 GI students plus eight others, is doing okey. You'll never miss his wind sock—it's on top of a grain elevator adjoining the turf field north of the town.

* * * *

NEW ORLEANS. After a couple of days in the office, I was off again to another convention, this time the NATA annual gathering of the clans at New Orleans. On the way I got a surprise. I travel a lot by airline and never expect (and rarely get) any special treatment, but at Washington National, **Phil Fellows,** EAL's ticket counter supervisor, hunted me out before plane time to get my preference of a seat in the non-stop Connie. That was a plush gesture in itself, but on arrival at New Orleans I was met by **Walt Cutshall** and **Mickey Ogden,** EAL's traffic and sales manager and assistant manager respectively. I felt like a celebrity.

On board the Connie were **Wiley Wright** of the CAA and **Sam Dunlap,** founder of Slick Airways and we spent a lot of time hashing over aviation, as who doesn't these days.

One of the first birds I met in the Hotel Roosevelt on arrival was **T. B. Herndon,** Louisiana's aviation director. It didn't take long to find the others, about 50 of the leading operators of the country. On the first night I was taken in tow by **Jim Graham,** who runs the Chicago office of U. S. Aviation Underwriters, and I can assure you that Jim is a good guide. Specially recommended in New Orleans except for the family trade: the Cat Girl. You will travel around the world a long time before seeing the equal of that! And incidentally, Jim Graham is one of those blessed guys aviation wouldn't be worth a tinker's damn without.

There are some loyal and solid citizens in this NATA gang of fixed base operators, guys with common sense and stability. I'm thinking of men like **John Wilson** of Chicago, **Bevo Howard** of Charleston, S. C.; **Norm Larson** of Burbank, **Sam Freeman** of New Jersey, **Bill Marsh** of Phoenix and **Walter Laudenslager** of Red Bank, N. J. There are others, of course, but these men have managed to hold NATA together and under the new leadership of **Art Currey** as president and **Charlie Parker** as executive director, NATA ought to go places. The boys need a strong organization. No matter how many newcomers drop out of the fixed-base business, the old-line gang will keep in there pitching. Local aviation may drop in total volume but it isn't going to disappear by a long shot.

* * * *

AIRLINE ROW. New Orleans is one of the hottest competitive airline spots in the country. Right along the street by the St. Charles Hotel is Airline Row and we made the rounds one morning, except that time prevented our calling on Capital and PAA. First stop was in **Manley (Delta) Beard's** office and before long we had a crowd all talking airline shop. In the group were **L. H. Tudor,** who runs American's off-line sales office; **Lucien Taillac,** Delta's assistant sales manager, and **Joe Pontiff,** cargo manager. Then a cup of coffee with **Walt Cutshall** and the two of us dropped in to see **Jim Van Pelt** of National. While chatting, in walked **Ed Ellis** of Mid-Continent. Air coach is the big topic of airline conversation in New Orleans, as I guess it is everywhere else.

One man I never expected to meet in New Orleans was **Sam Martin,** secretary of United Air Lines, who was vacationing in Dixie. Ran into him in the St. Charles while telephoning a hello to **Les Arnold,** EAL's vice president who was escorting some Massachusetts legislators around some southern airports. At the airport I missed **Doug Langstaff,** the savvy manager, who's been laid up with a bad foot.

En route home I couldn't pass up an overnight stop with the **C. E. (Delta) Woolmans** with the usual bountiful plate of fried chicken provided by the Woolman cook, **Vannie.** Nobody ain't never had any fried chicken until they've tasted Vannie's. **Laigh Parker** was over for dinner and we ended up doing what seems to be inevitable these days—looking at the television. From Atlanta to Washington I took an EAL local, No. 566, which hit three airports I had never stopped at before, Anderson and Spartanburg, South Carolina, and Danville, Va. Get that load factor up, boys, I found it a little lonely in that DC-3!

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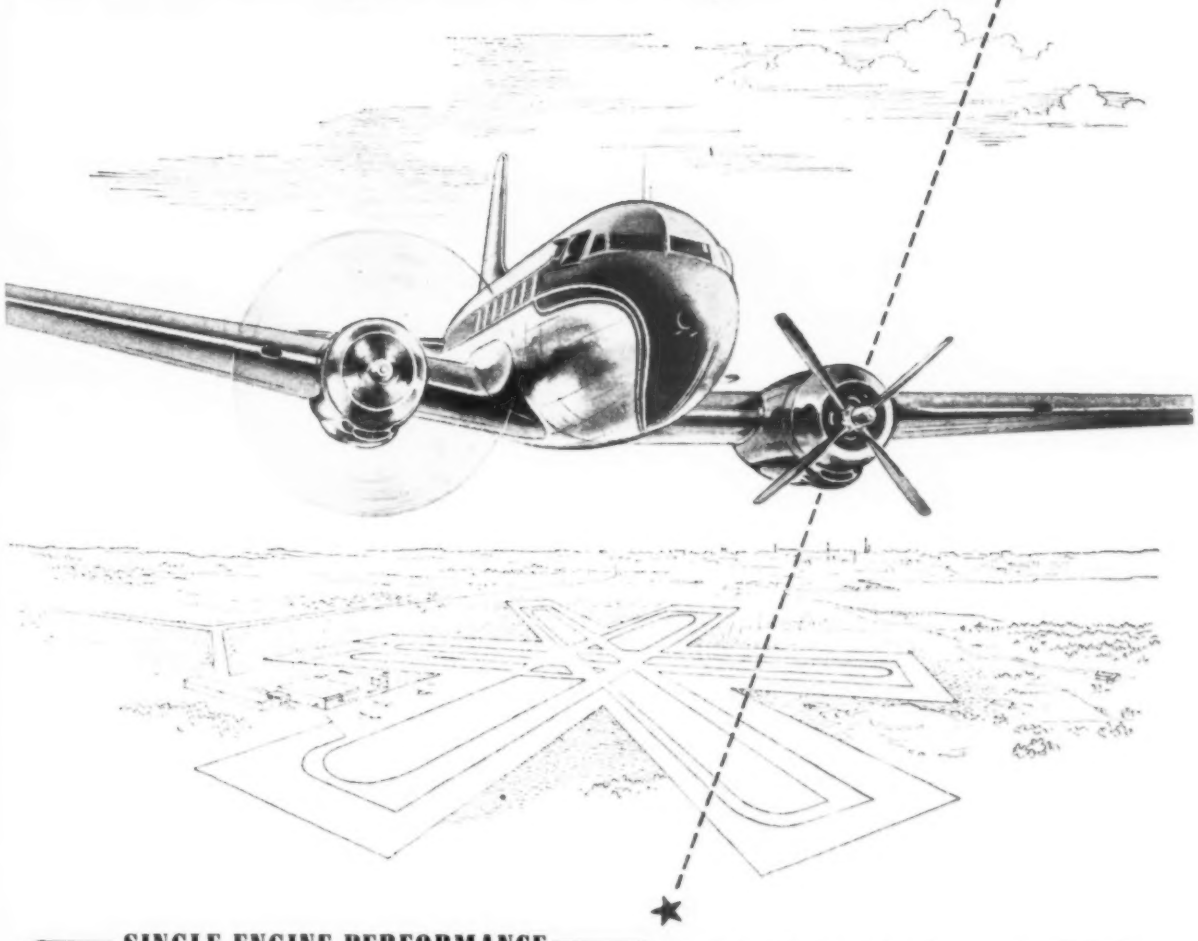

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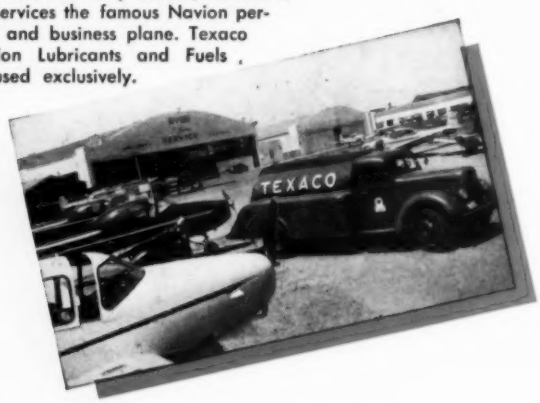

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